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FIGURE 1

GGCACGAGGGCGTCACGGGCCCGCCGTTAAAACGCTGCTGGCTGGAGCCACCTCCCTCCCTGCAGCCCGCA
ACGGGAATGGAGTAAAGGGAGACCCGTCGACCTGGCAGGGGATCAGCGATGGAATTAAAGCAATCTTGTCCA
CCCATCTGGAAGCCGAGAACGCTCTGAGGCCTATGGCGCTATGGGCGGGAGACGGCTGGAAAACGGAGAGACTGG
GGAGAAATCAGCTGGACATCATCTCCATGGCGAGACAACCATGATGCCAGAGGAGATTGAGCTGGAGATGGCAA
AAATTCAAGCGTCTCCGGAAAGTCTTGGTCCGCCGGAGTCTGAGCTCAGGTTATGGGCGCCATCCCAGAAAAAGAAAAACCAAACACTGC
GCAAGGACATCATGGACTTGAGCAGGAGCTGCAGAACCTGGTCCGCCATCCCAGAAAAAGAAAAACCAAACACTGC
AGAAGCAGAGAGAGGATGAGCTAATCCAGAAGATCCACAACTGGTGCAGAAGAGAGACTTCCTGGTGGACGATG
CGGAGGTGAGCGGTTAAGGGAGCAAGAAGACAAGGAAATGGCTGATTCCTGAGAATCAAGTAAAACCTC
TAGACAAAGTAACCAAATCTCAGCCAGCTCCGGCAGAGAAGAAAGCAGAGCCCCCACCTAGCAAGCCCACGG
TGGCCAAGACGGGCTGGCACTGATCAAGGATTGTIGCGGGGCCACCCAGTGCAACATCATGTAGCCCCACGTG
GGGTGCCCTGGGCATGGGACCCCCCCCCCACCCTTTGTCTTATAGCCCCCATTCACCGGGGCCAAGAGCT
CTCCAAGGCAGAAGGGTTGAAGGCAAGCCGTGACTGTCACCAGAGGCCATGGCACGGCAGGCGGGCTGGC
ACCCGTACAGAGTGTAGCAGTAGGGAGTCTCTCACCGTCGATGGCTCTCCCCAGAGCATGCCGAACCCAGGAG
TCTGTCTCACTGTTATCAAACACCAGGAAAGGTCCTCCCTCAAAAAGCATATCTCACTTCTCTAGCTGT
ATCTAACCCACCGTGTGAATGAACTGGGAGAGGGCATGCTCCCCAGCTGTGTGTTAGCTGACTCTCAACAAAT
CTAGCACCATGTCGGACACGTTCCCATCCACCCCTTAGCTCTGCTCTAGAGCTAGGCACATGGGCACAGGTC
CCCTCCCGTCTGCTCTCCAGCAACTGTGCCCTGGAGGGCTCCACATGGCCCCCGTGTCTCTGGGCACCACC
CATATAGCAGTCCAGAGGCCATCTGTAAGATCGAGCTTGTGTGTTAGCTGACATCTCCGCTCC
CCCCATCCTGTGTCTGGCACAGTTACATCAGGACAGCGTCATTGTGCTCTAGCTGCTCCAGGTGTGTTAGCTG
TGGAGGGGCCCTGGACTGGCATGGATCCAGTGTGAGAAGAGCCAGCAGGGAACCGGAAGCTCTGATGTCAAGGC
CAGAGCAGTTGAGAATGGGACCCAGAGTAGATGCTGACCTGGCACTCCACCATTCGGGCCACCACAGAGATG
CCAGCAGGATGCCACTTGGCAGCCGACACACGGACCTTGTAAAGAACAGCAACAGGCAGGAGAGGCAGCGTG
TGACCAGATTGTGTCCGTCTGGCATATGTTAACTAGCTGCCAAACAATTCAACCCGTGTAATTCTAG
TACATTGCAACAGCCAGCCGGTACAGCCTGTGACTCTCTGATGTGTGTTAGCTGACCCATCAGAGAAAATG
TAGTTAGCATAACTCAAGATGCTGATGTGCACTGACCATAGGAAATGGAAACACGTTCACAGCA
TTTAAAGTTTACTTTTCTGATTATGGAAGTAATCCATGTACATAGTAAATCATTTAAAGTACAAA
AAGTATGAAGAAGTTGTCTAAAAAAAAAAAAAA

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FIGURE 2

HEGVTGARPVKTLLAGATSLPAARNGNGVKGDPSTWPRGSAMELKQSLSTHLEAEKPLRRYGAVEETAWKTERLG
RNQLDIISMAETTMMPEEIELEMAKIQRLREVLVRRESELRFMMDIQLCKDIMDLQELQNLVAIPEKEKTKLQ
KQREDELIQKIHKLVQKRDFLVDDAEVERLREQEEDKEMADFLRIKLKPLDKVTKSPASSRAEKKAEPSSKPTV
AKTGLALIKDCCGATQCNIM

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FIGURE 3

CATTTTAAACTTTTTAATTTATTTGGTAGCTAGGTTTATATGTTCTAAATTATTTACTCTATT
TTATTTCCATCACTCTTGTCAGATTGATGAAATTGCTGATGTCATTTATGTCTACTTTGAACCT
TCTCTTGTTGTTGTTCTTATTACAAACTCCAAGACACATTGCTAGAATTGCTACAGATTCGTGAGCT
ACTTATTGGTAGCTCTTAATTCATACTTGTCAGACCATTAGACATTACATGCTCTGCTGGCCTATC
ATTAACATTAGCTTAGGGATTCTGATTCAAAGACATAAAGAATTGGAAAACCTCTTACAGAACTTAAACA
AGTTTAAAGTTACATTCTATACATCTAACATAACCTCTTAGCCATTAAATGTAATTCTCTGGATAAAG
ATAATATATTCAAAAAATTGGGACCAAAAATGCACTTGTCTTGCTCATATATATAGATGTAAGTNT
TTAATTCTGTTTGTATTGGTTACATTGAATACAGATTGCTAACAGTTGATGTTATTTTTAAT
AAAATTGTATTGTTAAAGTGCCTGGAAATTCTAATAAAATAACTTCA

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FIGURE 4

AAATATGTGGGTGGAAGAACGCTGTAGTAGCAGAGTTTGGGATGGAAAATCGTGTGGTTCTGCCACAT
GATCCAAGCTTGCTATCAAAAGGTAGAAGATGTCCAAGAACITGTTGATAATGAATTGGCTTCAGCAAGTT
GTTCTAAATGTCCAAACAAAATAAAACTTTCTGTAATATCTGGATGAAAAGAGAGTAGTTGGGTGTTAAT
TGCAGAACCCATCAAACAGGCATTCGTGCTGTGAACCAATTGGTCCAGAATCCCCAAGCTACGGAATG
TCCTAGGGCTTGGCAATGTCAGATGTACCAAGAACCTGCAGTCTGTTGATAAGTAGAATCTGGGTTTCAGACT
GAAGAGAAGAAAGCGCATTGCAAGACGACTGGGTGATAACCCCTAGGAATTGCTTCATGTTGGCTGTTTCAG
CACTGATGAAATAGCATTTCGTACCCAACACCCAGATGGCAAGTTATTTGCAACCAAGTACTGCAACACCCCTAA
TTTCCTCGTATATAATTAAATAGTTAAAGCTGATTTCAGTTATAAGGAGTTACTATCTGGATAAGTTCAAAGA
GCTCCTTATTATAAAAATACAAACTATTTAATATCAAATAAAAATACCGAGACT

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FIGURE 5

KYVGWKKERVVAEFWDGKIVLVLPHDPSFAIKKVEDVQELVDNELGFQQVVPKCPNKITFLVISG

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GGCAGCAGAAAAACATTAAGACAGAACTAAAAACAATAGATTGACTATAATCCAAAGACGAGTGTACCTCTAA
CCACAATTTCATTTTAAATGTTCTTCATGCCCTCTGTGGCTCACCTATGCAGTTGTGATT
GTTGACAACCTTATGTGTTTTAATATGGTTTGCAAACCTGGGTTTCCGAGACCGTCTTCAGAGGCT
CAGTTTACCGCTCATCTGCAGTCGGCTACTTCAGTGGGAGAACAGGGCACATCTGCTTCCTGTAGGCCCTC
TGGGCAGAAGCATGGCCTGGTGTCTCTCTGATCTGGGCCAGGGCTAGGCAGGCTCCCTGCCCTCAGGAA
TGATGACAGGCACAATAGAAACAACGGGAAACATTCTGCAGAGAAAGGTGGCTCTATCATCTTACAATGTCACC
TCTCCTCACCACGGCACAAGTGACCCAGGTCACTGGGAGCAGCAGGACCAAGCTTCTGGCATTGTAATGCTG
ACTTGGGTGGCACATCTCCCACCTCAAGGATCGAGTGGGCCAGGTCTGGCTGGCCTACCCCTCAGT
CGCTGACCGTGAACGATAACAGGGAGTACTCTGCATCTACACCTACCCCTGATGGGACGTACACTGGGAGAA
TCTTCCTGGAGGTCTAGAAAGCTCAGTGGCTGAGCACGGTGCAGGTTCCAGATTCCATTGCTGGAGCCATGG
CCGCAGCCTGGTGTCTGCACAGCAGTCATCGTGGTGGTCGGTGA~~T~~AGAAAGAAGAAAGCCCTCAGAA
TCCATTCTGTGGAAGGTGACCTCAGGAGAAAATCAGCTGGACAGGAGGAATGGAGGCCCTAGTGTCCCTCACCCCC
CAGGAAGCTGTGTCCAGGCAGAAGCTGCACCTGCTGGCTCTGTGGAGAGCAGCGGGAGAGGACTGTGCCAGC
TGCATGACTACTCAATGTCCTGAGTTACAGAACGCTGGTA~~T~~CTGCAGCTTCTCACAGAGACTGGTTAAC
CAGAGGCATCTCTGGAAGATAACACTTTGTCTTGTATTATAGATGAATATATAAGCAGCTGACTCTCCATC
AGTGTGCGTGTGTGTGTGTGTATGTGTGTGTGTTAGTGTGAGTGAATAATGTATCCCTCTCCAT
CTTCATTCTGGCTTTCGTTCTATTCCATTGCAATTGGCAGGCTAGGGTGAGTAACGTGGATCTTGA
TCATAATGCAAAATTAAAAAATCTTGACCTGGTTTAAAAAAAAAAAAAA

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FIGURE 7

MRWCLLLIIWAQGLRQAPLASGMMTGTIETTGNISEKGGSIILQCHLSSTTAQVTQVNWEQQDQLLAICNADLGW
HISPSFKDRVAPPGPGLGLTLQSLTVNDTGEYFCIYHTYPDGTYTGRIFLEVLESSVAEHGARFQIPLLGAMAATL
VVICAVIVVVALTRKKKALRIHSVEGDLRRKSAGQEEWSPSAPSPPGSCVQAEAAPAGLCGEQRGEDCAELHDY
FNVLSYRSLGNCSFFTETG

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FIGURE 8

GTCAGTCGCGAGCGAACGACCAAGAGGGTGTGACTGCTAGAGCCGAGCGAAGCGATCCTAATCAAGGAA
TTGTTCTCAGGCTCTCTGGCAGTGATTCTGACAGTGAGGTTGACAAAAAGTTAAAGAGGAAAAGCAAGTTG
CTCCAGAAAAACCTGTAAAGAAACAAAAGACAGGTGAGACTTCGAGAGGCCCTGTCATCTCTAAACAGAGCAGCA
GCAGCAGAGATGATAACATGTTCAGATTGGGAAATGAGGTACGTTAGTGTTCGCGATTAAAGGCAAAGTGC
TAATTGATATTAGAGAATATTGGATGGATCCTGAAGGTGAAATGAAACCAGGAAGAAAAGGTATTCTTAAATC
CAGAACAAATGGAGGCCAGCTGAAGGAACAGATTCTGACATTGATGATGCAGTAAGAAAACTGAAATTCGAGC
ATATAAAATAAAACCTGTACTGTTCTAGTTAACTCTGCTTTTACATTAGCTTTGTTCTAAATGTCT
CCAAGCTATTGATGTTGGATTGAGAAGAATTGTAAGATGAATACTTTTTAATGTGCAATTAAAAAT
ATTGAGTGAAGCTAATTGTCAACTTTATTAGGATTACTTGTCTGCCACCACCTAGTGTAAAATAAAATCAAG
TAATACAATCTTAACTGTTGGCTTTTGATCATAGAGTTGGTACTGTTAAGGCCAAAGTAACAGTTT
TATAGATCTTTAGTTCAACTCAGCTTTACAATAAAAGGATTGTATTGCAATTGAGTTATAAAACTTTGGT
TTGTGAACCTCATATTGATCTTCTCTTCAATCAAATGCTAGGCTTGTGACTTCCACCCCCAATGGTT
TTCACTCTTTTATTTACTCATTTCTTTAATAACTTAATCTCTCATGTTCACTCTTACTTCACCTTTAT
TCTTTCTTGATTATGGTATGCTTATTGGAAAGTCAGTGAACACTGTCAAAATGTTATCTCAATAAGATACTTA
TATGAGAACTACAATCACCGAATCTACTGATTCAATATTAGCAGATCTAATTGATAAAACAACATGGCTTG
GAAAACGTGAGCAGGTGTTGTTACCCATAGTGTCTGTGTTATTGCTTAGTCTGCAGAAAATAATGACTTA
GATGAGATGTCGACTTGCTTCACTTATTAAACATGTTCACCATGGGATGATGTCGTTAACATCAGATATTGTT
CAACTAGACTAGGATTAAATAAAATTGTGAAAGCTAAAAAAAAAAAAAA

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FIGURE 9

MPKSKELVSSGSSGSDPSEVDKKLKRKKQVAPEKPVKKQKTGETSRALSSSKQSSSRDDNMFQIGKMRYVSVR
DFKGKVLIIDIREYWMDPEGEMKPGKGISLNPEQWSQLKEQISDIDDAVRKL

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FIGURE 10

GCGCGGGGGCCGAGCCGCTCAGTCTCCCTGCTCTCCGTGGTCCCGCTCGCGTGTAGCGGCCGCCGCCGTCT
CCGGTGAGGAGGCAGCGCGCGGGCCATGACGTCAAGCTCAGCTCCACAAAGGTGGAGAGATCTTCGGCGGCCGCCG
CCTTCACGAAGCTCGGGAGCTGACGATGCGAGCTCATCCCGACTCTCTCTCGCGGGCGCGAAGTGG
CGGAGACGGAAATAAGAGATGCTGAGGGCTGCTGTGAAGCGATTGGGACGATTTAACATCACATCAGCTGTGTCA
TCAAGGAACGGACAGTGGCCCAGATAAAAGGCCACTGTGAAACGCAAGGTATATGAAGGATTCTGGCATCCCCCTTC
CAGCTGAGTCACCCAAGAAAGGCCAAGAAGGTCATCTGGTGTCTTCACCTCCTCCAGCTGCCCTCCTC
CCAGCAGCTCCAGTGTCCCTGAGGCCGGGGTCCCCCATAAAAGAACAGAAGGCTGATGTGACACTCAGTGTCTC
TGAACGACTCCGATGCCAACAGTGACGTGGTGGATTGAAGGGCTAGGAGAAACTCCTCCAGCTAAGAAACTCA
ACTTCGACCAGGACAGCCTGACCTCTCATGTTCATGCCGGACCTGTGGATCTCTGGACTCCGAGCAAGGCCTGCAC
GAGCCTCCACCTCTGACCTCTCATGTTCATGCCGGACCTGTGGATCTCTGGACTCCGAGCAAGGCCTGCAC
GAGAGAGGGCTGAAAGGCTGCTGGGCTGCCACCTCGCTATTCCGCATAAGCATCTGCCCAACCCCTTGAC
CTTCATCTGATGGACATTTTATACAGAAAACAATAAGATTCCCTCTCAGCTT

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FIGURE 11

AGARAAQSPCSPWSRLACGGGVSGEEARGAMTSASTKVGEIFSAAGAAFTKLGEITMQLHPVADSSPAGAKWT
ETEIEMLRAAVKRGDDLNHISCVIKERTVAQIKATVKRKVYEDSGIPLPAESPKKGPKKVASGVLSPPPAAPPP
SSSVPEAGGPIKKQKADVTLSALNDSANDSDVVVDIEGLGETPPAKLNFQDSLTLDSGLLMTSADPPLLSC

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FIGURE 12

CGGATGATTCAAGGCATGGCTCTGCTAACACTTTAAAGCATGGATTAACTTCAAGTTATTTAC
TGCACCATCCCATTGTGAAACAACTAGCTTACTCAGTTTTCCCTTATAAAGGAAGAACAGAAAAGT
AAAAGGAGGAAAGAAAACAAGAGGTGAGTGAGGCAACTGAAACTGTTCTGGACCTGCGGTGCTATAGAGCAGG
CTCTCTAGGTTGCCAGTATGGAATCTGGACCCAAAATGTTGGCCCCGTTGCCTGGTGGAAAATAACAA
TGAGCAGCTATTGGTGAACCAGCAAGCTACAGAATCTTGAAAGATTCAGCCAGTGGTGGTGGCCAT
TGTAGGACTGTACCGTACAGGAAATCTACTTGATGAACCATCTGGCAGGACAGAACATGGCTCCCTCTGGG
CTCCACGGTGCAGTCTGAAACCAAGGGCATCTGGATGTGGTGGCGTGGCCACCCATCCAAGCCAACACACCC
GGTCTTCTGGACACCAGAAGGTCTGGCGATGTGGAAAAGGGTGAACCTAAGAACATGACTCTGGATTTGCCCT
GGCTGTGCTCTGTGCAGCACCTTGTCTACAACAGCATGAGCACCATCAACCACCAGGCCCTGGAGCAGCTGCA
TTATGTGACGGAGCTCACAGAACTAATTAAAGGCAAAGTCCTCCCAAGGCCATGGAGCAGAACATCCACAGA
GTTTGAGTTCTCCAGACTTCTTGACAGTACGGGATTCACTCTGGAGCTGAAGTGAACGGTCACCC
TATCACAGAAGATGAATACCTGGAGAATGCCCTGAAGCTGATCAAGGCAATAATCCAGAGGTCAAACATCCAA
TTTCCCAGGGAGTCATCAGCGTTCTTCCAAAACGGAAGTGTTCGCTTTGACCGGCCAACAAATGACAA
AGACCTCTAGCCAATATTGAGAAGGTGTCAGAAAAGCAACTGGATCCCAAATTCCAGGAACAAACAAACATT
CTGTTCTTACATCTTCACTCATGCAAGAACCAAGACCCCTCAGGGAGGGATCACAGTCACTGGGATCGTCTGG
AACTCTGGCAGTGACTIONTGTAGAGGCCATCAACAGTGGAGCAGTGCCTTGTCTGGAGAATGCACTGATAACTCT
GGCCCAGCGTGAGAACTCAGCGGCCGTGCAGAGGCATCTGACTACTACAGCCAGCAGATGCCAGCGAGTGA
GCTCCCCACAGACACGCTCCAGGAGCTGGACATGCATGCCCTGTGAGAGGGAGCCATTGCAATCTTCA
GGAGCACTCTCAAGGATGAAAATCAGGAATTCCAGAAGAAGTTCATGGAAACCACAATGAATAAGAAGGGGGA
TTTCTTGCTGAGAATGAAGAGTCATCTGTTCAATACTGCCAGGCTAAACTCAATGAGCTCTCAAAGGACTAAT
GGAAAGTATCTCAGCAGGAAGTTCTGTTCTGGAGGGCACAAGCTCTACATGGAAACAAAGGAAAGGATTGA
ACAGGACTATTGGCAAGTCCCAGGAAAGGAGTAAAGGCAAAGAGGTCTCCAGAGGTTCTGGAGTCACAGAT
GGTGAAGAGGAATCCATCTGCAGTCAGATAAACGCCACTGATAGAGAGAAGGCAGTAGCAGTGGATGGGC
CAAGAAGGAGGAGCAGTCAGAAGGAACAGGAACAGGAAATTACAGGAGCAGCAGAACAGATGGAGGC
TCAAGTTAAGAGTCGAAGGAAACATGCCAATGAGGAGAAGCTGCAGATGGAGAGAGAACACCTACTGAG
AGAGCAGATTATGATGTTGGAGCACACGAGAAGGTCCAAAATGATTGGCTCATGAAGGATTAAAGAAGAAGTA
TGAGGAGATGAATGCAGAGATAAGTCATTTAACGTATGATGACTACAAAAAATGATGATACTCCCTGGAT
TGCACGAACCTGGACAACCTGCCGATGAGCTAATGCAATTGCTGCTCTGCTAAATTAAATTGGTATGG
TGTCAAAGGTGTGAGCTACTCTTAAAGCATAAGCTCCCTTAAAGGATATTAGATTGTACATATATGC
TTTGGACTATTTGATCTGATGTTCAATTCAATTGCAAGTTTTTTTTT

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FIGURE 13

MESGPKMLAPVCLVENNNNEQLLVNQQAIQILEKISQPVVVAIVGLYRTGKSYLMNHLAGQNHGFLGSTVQSET
KGIVMWCVPHPSKPNHTLVLIDTEGLGVEKGDPKNDSWIFALAVLLCSTFVYNSMSTINHQALEQLHYVTELTE
LIKAKSSPRPDGAEDSTEFVSFFPDFLWTVRDFTLELKLNHGPIDEYLENALKLIQGNNPRVQTSNFPRECIR
RFFPKRKCFVFDRPTNDKILLANIEKVSEKQLDPKFQEQTNIIFCSYIFTHARTKTLREGITVTGNRLGTLAVTYV
EAINGAVPCLENNAVITLAQRENSAAVQRASDYYSQQMAQRVKLPTDTLQELLDMHACEREAIIAIFMEHSFKDE
NQEFQKKFMETTMNKKGDFLLQNEESSVQYCQAKLNELSKGLMESIAGSFSVPGGHKLHYMETKERIEQDYWQVP
RKGVKAKEVFQRFLESQMVIIESILQSDKALTDREKAVAVDRAKKEAAEKEQELLKQKLQEQQQQMEAQVKSRSKE
NIAQLKEKLQMEREHLLREQIMMLEHTQKVQNDWLHEGFKKKYEEMNAEISQFKRMIDTTKNDDTPWIARTLDNL
ADELTAILSAPAKLIGHGVKGSSLFKHHKLPF

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FIGURE 14

CTTCTCATTAGCATTAACTAGTTATGCCAGCTGGGAGAGCCTTGGCTTATCATTTATTATAAGCCAG
AAATAGGTGACTAATCAGAGATAAATGTATGGGTTGTCTGTATCTAGTTTATGCCTTTTTGCCTAAGACG
TAGTCAAATTAAATTTAACTAATACATCTAGCAGAGTTAGTTAAGCACAAAGTAAACAGTGGGTAGGATTG
AATCTTGAAAGTAATCATGTCTGTAATGTTTCATGCATGCAAAAAGCACAGACAAAACACTCATGCCCTATT
AATAAACAAAATACAGATCAAAGTTCAAAAGTAATCACTCTATTCTAAATGTCTGTGGCTTAGGAAAA
TACCACCGCTAGTACTTACCTATTAAAGATGAGAATTATCCTTAATATTCTTATCAGTTGTTCCAC
AACTTAGTTACTATTGGACTTCAAAAATTAAAGAATTACAAGTAAATTCTTAAACACTTGTGTGAAT
AGTAATACACAGTAATTAGTACAGCATGTTGCTCTCAACAAATTGAGTTTCAGGAAATCAGCAAGTAATG
AAATATAAATTGGTAAAGTATCAAACATTCACTTGCCCATTTCTCTAAACTTTATTATCTAATCAA
ACATAGTTTCCATAAGATGTAATAAAATATAGATAAGGTTGGAATATTGAGGATCATTGTTGAACTGAATT
TAATGAGACTTCATTGGTGTACACTCAATTCTACTGGTAATTAGCTAATAATGTGGTCACTGTCTCACAGT
TCAAGTAGCTTAAGATGATGTGGCAAGGAAAACACAAAGCTTGGTAACCAGCCTTAAATGTATGGTT
TTGACCAAGGTGAACCCCTTAGAAGTGAATTCTGTTTAAAGATGACTTAAACCTTGGTGTGATGAAT
GTAGATCCCAGCAGAATACAAAATCTATTGACTGAGTATTGAGATGCTTAATGACTGAAATGAAT
TTGGAGGCAGTGAAGTGATTTAAAGITCTCAGGTACTGTTCAATTATTAATGTTAAGTTAGTATC
AAGATACAGTTGTTTAAATGCCAAATGCTGTTATTACAGAATATTATTACATTGCAATATTTG
TATATAGTGATTTCTGATAATAATGGAAAAATTCTAAACAAA

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FIGURE 15

AATTCGGCACGAGAAAAGCCAGAGTGAGGATTGGGAAGAAAACCCATGGAAAGTAGCAGTGTGAGTTGCAG
AGACAGGAAAGATAGAACGTTCCATGTGTTATTCTGATGGTCAGTTACATTGGAAAAAATGAAATCA
CACACCACCTCCAGTGTGGCAGCTCTGTAGAAAATTAGTTAGAAAATTCTGAACTGTTAAAGATTGCTGA
TGCCATTGAGCAAACCTTTCAGAGGAGAAATAGTGAACCAAGTGCAGCTACAGAAGGATT
AGAAAACGAAGGTCTTGTATGGATTCACTTCCACTTCCACTTCCCACCTCCCCAAAAGCCAAAAGAAGAACAAATAG
TACATTGACAGCAGTGGATTGAAAGTATGTCCTCCATAAAGAAACTGTGTCCTCCAGACAAAACCGCAGAT
GGCACCTCCCCTCTCAGATCCAGAAAACGCCAGGGCCCTGCTGCTGGTTCTCGATGAACCTGTAAGAGGAG
GAAGAGCTTTGTATATCTACACTTGCAAATACTAAAGCCACTTCCCAGITCAAAGGCTACCGGAGAAGATCCTC
TCTTAATGGGAAGGGAGAGAGCTCTGACTGCCTGGAAAGGATTGACATTAATGGAGAAAGAAAGCAGTATTG
ACATTCCCTGCANAGTCAGGGCAAGAGGGAAAGTACCATCTATGCTGAAATGATCTGNCTAGTTCCATTCTTG
TTCAACCTCAGNGTTCAAAAGTCCATTAAACTCNTTGGGTGACCTACTTTTGTA

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FIGURE 16

ATGGGTGAGAGAACTCTCACGCTGCAGTCCCCACACCAGTTATCCAGAACATCTGAATCCATCATGATGGCCCC
ATTTGTCTAGTGGAAAACCAGGAAGAGCAGCTGACAGTGAATTCAAAGGCATTAGAGATTCTTGACAAGATTCT
CAGCCCCTGGTGGTGGCATTGTAGGGCTATAACCGCACAGGAAAATCCTATCTCATGAATCGTCTGCAGGA
AAGCGCAATGGCTTCCCTCTGGCTCCACGGTCAGTCTGAAACTAAGGGCATCTGGATGTGGTGTGCCCCAC
CTCTCTAAGCCAAACCACACCCCTGGCTCTGGACACCAGGGCTGGCGATGTAGAAAAGAGTAACCCCTAAC
AATGACTCGTGGATCTTGGCCCTGGCTGTGCTCTAACGCAGCAGCTTGCTATAACAGCGTGAGCACCATCAC
CACCAAGGCCCTGGAGCAGCTGCACTATGTGACTGAGCTAGCAGAGCTAACAGGGAAAATCCTGCCAGACCT
GATGAAGCTGAGGACTCCACGCAGTTGCGAGTTCTTCCAGACTTTATTTGGACTGTTGGGATTTACCTG
GAGCTAAAGTTAGATGAAACCCATCACAGAAGATGAGTACCTGGAGAATGCCCTGAAGCTGATTCCAGGCAAG
AATCCAAAATTCAAACATGCCCTAGAGAGTGTATCAGGCATTCTCCAAAACGGAAGTGCTTTGTC
TTTGACCGGCCTACAAATGACAAGCAATTAAATCATATGGACGAAGTGCCAGAAGAAAATCTGAAAGGCAT
TTCCCTATGCAATCAGACAACCTCTGTTTATATCTTCACCCATGCAAAGACCAAGACCCCTGAGAGAGGGATC
ATTGTCACTGGAAAGCGGCTGGGACTCTGGTGGTGAATTAGTAGATGCCATCACAGTGGAGCAGTACCTTGT
CTGGAGAATGCAGTGACAGCACTGGCCCAGCTTGAGAACCCAGCGGCTGTGCAGAGGGCAGCCGACCACTATAGC
CAGCAGATGGCCCAGCAACTGAGGCTCCCCACAGAACAGCCTCCAGGAGCTGCTGGACGTGCATGCAGCCTGTGAG
AGGGAAAGCCATTGCACTGGGACTCCTCAAGGATGAAAACCATGAATTCCAGAAGAACCTGTGGAC
ACCATAGAGAAAAAGAAGGGAGACTTGTGCTGAGAATGAAGAGGCATCTGCCAAATATTGCCAGGCTGAGCTT
AAGGGCTTCAGAGCACCTGACAGAACGATTGAGAGGAATTCTCTGTTCTGGAGGACACAATCTCTAC
TTAGAAGAAAAGAACAGGTTGAGTGGGACTATAAGCTAGTGCCTCAGAAAAGGAGTTAAGGCAAACGAGGTCTC
CAGAACTTCCCTGCACTGACAGGTGGTTGTAGAGGAATCCATCCTGCAGTCAGACAAAGCCCTCACTGCTGGAGAG
AAGGCCATAGCAGCGGAGCGGGCATCAAGGAAGCAGCTGAGAAGGAACAGGAGCTGCTAACAGAGAAAAACAGAAG
GAGCAGCAGCAATGATGGAGGCTCAAGAGAGAACGCTTCCAGGAAAACATAGCTCAACTCAAGAAGAACATGGAG
AGGGAAAGGGAAAACCTCTCAGAGAGCATGAAAGGCTGCTAAAACACAAGCTGAAGGTACAAGAACGAAATGCTT
AAGGAAGAATTCAAAGAAATCTGAGCAGTTAAATAAGAGATTAATCAACTGAAAGAAAAATTGAAAGCACT
AAAATGAACAGTTAAGGCTCTAAAGATCCTGACATGGCTAGCAACATAATGATTGCACTCTACCTGGGCT
TCCAAGCTACTTGGAGTAGGGACAAAATCTTGGCTCACGTATTAA

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FIGURE 17

MGERTLHAAVPTPGYEPSESIMMAPICLVENQEEQLTVNSKALEILDKISQPVVVAIVGLYRTGKSYLMNRLAG
KRNGFPLGSTVQSETKGIGIWWCVPHLSKPNTLVLIDTEGLDVEKSNPKNDSWIFALAVLSSSFVYNSVSTIN
HQALEQLHYVTELAEELIRAKSCPRPDEAEDSSEFASFFPDFIWTVRDFTLELKLDGNPITEDEYLENALKLIPGK
NPKIQNSNMPRECIRHFFRKRCFVFDRPTNDKQYLNHMDEVPEENLERHFLMQSDNFCSYIFTHAKTKTLREGI
IVTGKRLGTLVVTYVDAINSGAVPCLENAVTALAQLENPAAVQRAADHYSQQMAQQLRLPTDTLQEELLVDHAACE
REAIAVFMEHFSFKDENHEFQKKLVDTIEKKKGDFVLQNEEASAKYCQAEILKRLSEHLTEISLRGIFSVPGGHNLY
LEEKKQVEWDYKLVPRKGVKANEVLQNFLQSQVVVEESILQSDKALTAGEKAIAAERAMKEAAKEQELLREKQK
EQQQMMEAQERSFQENIAQLKKKMERERENLLREHERLLKHKLKVQEEMLKEEFQKKSEQLNKEINQLKEKİEST
KNEQLRLLKILDMASNIMIVTLPGASKLLGVGTKEYLGSRI

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GGTTTCTGGXXGGGGTTTCACACXCGGCTCTGTCTTTGCAGGACCCATCGATTGAATTCGGCACAG
CATCAGTATGCTATGGATTTGATGACAGGCATAGCCTGGCATATCACCTCATTGGTAAGGGCTAGAGCCTT
CTTTTTATGGCACTCTTTTGAGATAGGGCTTACTCTGTACCCCTGGTAGAGTACACTGGTACAATCAC
GGCTCAATGTAGGCTAACCTCTGGGCTCAGGTGTATGTCATAIGCCCGGCTACTTTTGATTTGGTAG
AGACGGCTTCGCCACGTTGCCAAGGCTGCAAGCGATATGCCCTAGGCTCAAGCGATCTGCCAACCTCAACTCCGG
AAAGTGCTGAGATTACAGGTGTGAGCCACTGCACCCAGGCTTGCTTATTTTATTTTGAGAGGGTATGATT
TTCTAGAGATTTTCTATGGCTACTATTAGATCAGGAATGGGTGATTGGAGATTATTAGATTCTAGGTTAAC
TTCTACCACTTACCCATAATACAAAACTTTCTAAATXAATGATGGAAGGAATXAAXXXXAXXXCCXCXT
XXCCXCTAXTACAAAAXCXTAGCCCTAXAACXTTXGXXAGCTXXXTXXCCTXXXTCCXTXXCTXXXCC
CCXXXCTXXTXXCTXXXCTXCTCAXCCCCACXAXTTCXAXXXCTXCCAATAXATTXCXCTXXCTXX
TCCTCAXXXCTXCTXXXCTCXX

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FIGURE 20

MPDDEGEGEGLCWKVVDLGDMKNVDVLSFSHAPSFNFLSNCSKPKEDKAVDTSDEVAEDPMGLQGIDLITAAL
LFCLGDSPGGRGISDSRMADIYHIDVGTQTFSLPSAILATSTMGEIASASACDHANPQLSNPSPFQTLGLDLVL
ECVARYQPKQRSMFTFVCGQLFRRKEFSSHFKNVHGDIHAGLNGWMEQRCPLÄYYGCTYSQRRFCPSIQGAKIIH
DRHLRSFGVQPCVSTVLVEPARNCVGLHNDHLSLPEVLIQHIAGFLDGFSLCQLSCVSKLMRDVCGSLLQSRG
MVILQWGKRKÝPEGNSSWQIKEKVWRFSTAFCSVNEWKFADILSMADHLKKCSYNVVEKREEAIPLPCMVTREL
TKEGRSLRSVLKPVL

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FIGURE 22

MPVAVGPYQQSQPSCFDRVKGFMGAVGMAAGALFGTFSCLRIGMRGRELGGIGKTMMQSGGTGTFMAIGM
GIRC

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FIGURE 23

AGACTCCCTGCTTTGCCGGTTGGGAGATGATGAGAAACCACAGAATTGCTAGTAGTTATGTGGAGATCAGGTC
 TTCTCCAAGAAAAAAAAAGAAAAAAAACACATGGCTGCAAAGGAGAACTGGAGGCAGTGTAAATGTG
 GCCCTGAGGGTGCAAGCATCATGCTGGATGCTCTGTACAGATGGATGTCAGCTCTTTCCAGCAGATC
 CAAAGAAGTAGCCTAGTAATAACCCCTTTCCAGTATAAGTATTGGCTCTTAATATGCATTATGTAGGTTAT
 ATCTTAAGTGTGGTGTGCTAACATTGCCAGGCAGCATCTGGTTCAAGCTTATCTATATTTTGACTGCTCG
 CTCCCTATGCTGGACATCAAATTCCAGGGACTATGTTCGGAGTGAACGGAGTTGCCTATGAGGGACCAATG
 TATTAGAACCTCTCTATGAATCGGTTTACACAGCCTTAATAGGTCAAGTGGTGGTGTACTTTATGCTCC
 TGTCATGAAAACAAAGCAGATTGGCTGTTCACTCACATGCTCCCTGCTAGCAGCAGCTGCCTGTT
 CCTTGGAGACAATTGTTATCATCAATAAATTGTTATGTTACTGGATTGGAGTTCTATTTCTGGG
 TCTAATCTTGGTACCTTATAACCTGCTAAATGCATAACAGAGAATTGGTCAGGTAGTGGAGGTATATGGC
 CTTCTGCCTGGGAATGTCCTGTGAATCAACTGGTAGTCCCTGTTCTTCACTGGTTCTGGCTCGTCTTA
 TTTGCTCTCAGATTTACTCCTATTCACTGACTCGAGATCAGCCTGCATCACGTGAGAGGCTTCTTCCCTTTT
 CTGACAAGTATTGCGGAATGCTGCAGCACTCCTTACTCTCTTTGGGTTGGTCTCACGGTTCTTGGGCC
 TTGGGTGTTCTCACACTGCAAGTTTACTGCAAGGTTATCGAGCTTCATGAATGATCCTGCCATGAATCGG
 GGCATGACAGAAGGAGTAACGCTGTTATCCTGGCAGTGCAGACTGGGCTGATAGAACACTGCAGGTTGTTCATCGG
 GCATTCTGCTCAGTATTATCCTTCTTGTGCTAGCTTCTATCCTACAGTCTATGTTAGAAATTGCAAGATCCT
 ATTGTTTGGCACTGGGAGCATCTAGAGACAAGAGCTGTGAAACACTTCCGTGCTGTAAGCCTTGGTTATT
 TTATGGTATTCCCTGCTTATATGGCTTATATGATTGCCAGTTTCCACATGGATTGGCTTCTTATCATT
 ATTTCCAGCAGCATTCTAACCTCTTCAGGTTCTGGAACACTTTTATTATGTTATGTTATGTTGGAGGAA
 TTCAGAAAAGAGGCCAGTGGAAAACATGGATGATGTCATCTACTATGTGAATGGCACTTACCGCCTGCTGGAGTT
 CTTGTGGCCCTCTGTGGTGGCCTATGGCGTCTCAGAGACCATCTTGAGAACATGGAGCAGTGATGGCTCAATG
 ATCATCTTCACTCATTCACTATAACGTGTGGCTCGGGCCAGCTGGGTTGGAGAGACAGCTTCTCCCGCAGG
 GATGCTGTGAATAAGATTAAATCGTACCCATTGCTACGAAAGAGCAGCTTGAGAACACAATGATATTGTC
 ATCTGTTATCAGGACATGAAATCTGCTGTGATCACGCCCTGCGACTGCACTGAAAACACTCCCTCAGCTTCCAGGATTAGGA
 ACTGAGCCAGTCTACAGCCTCATGCTGGAGCTGAGCAAACAGTCATGTTAGGAAGGTACTGAACCCCCAGGC
 CAGGAGCATACTCCAGGGACCAGGATACAGGAAGTTCCAGGGACAATAATGAGTACATTGCCAGACGACCAGAT
 AACCAAGGAAGGGGCTTTGACCCAAAGAATATCCACAGTGCAGAACAGTGAAGCAGCACATCCTGTAATCAGCC
TAGAGGAGAACGAGCAGGAATGATGCTTGATACTCTGGAGGAGAACGTTAACTAAGATGGAATTCAATGTTCTGA
 TTGAGGAATGAAAATGAGATGATCAGGAGAACACTGACATTCAAGGATCTAACCCAGGAAGTACTCTCAGTG
 GGGACCACCTGCTTCATCCCCTGACATTGTTGAGGAAATTGCAATGTTGCTAACAAATGTTATGTT
 TTCTCTGCTGATGTTTATAGAGGTTGTGAAGAAAATTCAACCTCAGCAACTCAGAAACTGCCCTGATACGT
 GTGAGAGAGAAAATCAGATTGAGTGTGAAGGGACTGAGGAAGTGAGGATAAGAGCATGAGGACAGCA
 TGGAAAAGGGAGGCAGAAGTGGAACTGAACTTCACTCTCCATGGGACAGATCAATCTCATTCAAGTCTGAA
 TAGCAACCAGCCCTCTCCACCCGTTCTCCTCAGTTAATTGGAGCTCAGTCAGGTGATTATTGAGTCTGT
 ACAGCACTGAAATGAAATCAAAGATGAAGAACGATTGATTGATTCGAAGATTGAAGCAGCCTACACTTTGTAT
 GTGCTTAGGAAAGGGGTGGGCACTTGGCCTTGCGGGTGCATTGATGAAACTTGTAAATTGTTAATTCTGCAACTGAA
 TGACGGAGTCTCAATATTGATGATGAAACTTGTAAATTGTTAATTGTTAATTCTGCAACTGAAATCAAACAGTGTAAA
 TTATGGCAATATTGCACTTGGGAATGAGTACATAACTGTATGATCACACTCTGCAACATGCCACTTTAAAGCT
 GTTAATAGACTTGCACCTTCTTGTACAAGGATGTTGATGTTAAATTGTTAATTCTGCAACTGAAATCAAACAGTGTAAA
 AGAACTGGGGAGGGGGGAATGTAATTGGAAATTGATGAAAGAACACTAGTCATTATTTATACAA
 TAGGCTGGCTCAAAAGTGTGTTCTAGACACCTGGTATTCTTAATGTGGAGTGTGACTTTATTGTTAGTA
 GCAAATTGGATGACTGACAGACATGCTTAATAAATTAAATTGAAGAT

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FIGURE 24

MMRNHRIASSLCGDQVFSKKKKKKNNMAAKEKLEAVLNVALRVPSIMLDVLYRWDVSSFFQQIQRSSLNNPLFQYKYLALNMHYVGYILSVVLLTLPRQHLVQLYFLTALLYAGHQISRDYVRSELEFAYEGPMYLEPLSMNRTTTALIGQLVVCTLCSCVMKTKQIWLSAHLMLPLARLCLVPLETIVIINKFAMIFTGLEVLYFLGSNLVPYNLAKSAYRELVQVVEVYGLLAGMSLWNQLVVPVLFMVFWLVLFALQIYSYFSTRDQPASRERLLFLFLTSIAECCSTPYSLGLVFTVSFVALGVTLCKFYLQGYRAFMNDPAMNRGMTEGVTLILAVQTGLIELQVVFRAFLLSIILFIVVASILQSMLEIADPIVLALGASRDKSLWKHFRAVSLCLFLVFPAYMAYMICQFFFHMDFWLLIIISSSILTSQVLGTLFIFYVLFMVEEFRKEPVENMDDVIYYVNGETYRLLEFLVALCVVAYGVSETIFGEWTVMGSMIIIFIHSYYNVWLRAQLGWKSFLRRDAVNKIKSLPIATKEQLEKHNDICAICYQDMKSAVITPCSHFFHAGCLKKWLYVQETCPLCHCHLKNSSQLPGLGTEPVLQPHAGAEQNVMFQEGETPPQEHTPGTRIQEGRDNNEYIARRPDNQEGAFDPKEYPHASAKDEAHPVESA

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FIGURE 25

TTGCTTCTCCACCAACGTAAACAATTATAAAGCAAGAGATGAGAAAAAGAGATTATTGGAAATGTACTGAATAA
TGAGGAGTCTGGGAATAGAACAAAAGTTGTAAGTCGTAAACCTGACCCATCTTACTTCACTGGTAATCAAGTACA
GTCGAAAGGATGAAATAAAGAAGTGAGTAGTTAAAACCTGTTGGACCAGCACCTGAAATCAAATGGATGTTT
TAGGGTTCTGTTCCCACTGAACCAAGAATTGTATCCCTCCATCTCTCCTTGAGGGAGGGCCCTATGTTAGACCT
TGGCTACTCATCATTAAGATAAAATCTTAATAGATAAAACTGGAATTCTTGAATCCATGAAAAGACAGTGTCA
TTAAGGGTTGTGCAGTGGATGCTCTTATGTCCCATGGTAGAATAAGATCTCCTAGCTCCGCAAGTTAAAGG
CTCTTGCAAGGGCACTTAGAGATGTT

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FIGURE 26

GGAGAAGCAGCTTGAGGCATCATTAGATGCACTGCTGAGTCAGTGGCTGATCTGAAGAACACTCTGGGGAGTTT
CATTTGCAAGTGGAGAACGAGTATGCCGGCTGACCTGCCATCTGTCTGGACAGCTTGCCTGCTTCTGG
ACAGCTGAACACTCTGAACAAGGTCTGAAGCATGAAAAAACACCCTGTTCCGTAACCAGGTATCATTCTCT
GGTGTGTCAGACCGAGATGAAGATCTCATCCGGCAGACTGAAGGACGGGTGCCTGTTCAGCCATGAGGT
AGTCCCTGACCATCTGAGAACCAAGCTGACCCCTGAAGTGGAAAGAACAGGAGAACGAACTGACGACAGATGCTGC
CCGCATTGGTGCAGATGCAGCCCAGAACAGCAGATCCAGAGCTTGAATAAAATGTGTCACACCTCTGGAGAAAAT
CAGCAAAGAGGAGCGAGAACATCAGAGAGTGGAGGTCTCCGGCCGAACAAGCAGACCTTAACCCCTACAGACACTAA
TGCCCTGGTGGCAGCTGTGCCCTGGAAAGGACTATCTAATTGGAGACCTTCAGGCAGCTGGTCCGGCCA
GGCAGGCCAGCCAGGAGCTGGACGATCCTGCAGGAACCTCAGGATTACAGCAGGTGCAGATGGCAGGAGCTCC
AAGCCAGCAGCAGCAATGCTCAGTGGGTACAAATGGCTCAGGCAGGTCAACCAGGGAAATCCAAGTGGAAAT
AAAAACCAACATCAAGTCAGGCTTCCATGCATCCCTACAGCGGCCCTCCTGCCTGGGTTCAATTCTGGCTATCCC
TCTAAGGCAGCAAGGTGAAGAACGCTCTGGGCCAGGAAGGAAAAAAATGCCCACCTGCAGCTGGTGAAGCTT
GGGCCTGCTCCTCTTCCATCCTCTAAGGAGCCAACCTGGCTTACCTGTCAAATAGTCATAAAGTCCCCTATC
CTTACCCCACCTTACACACAGAGGCTTCTCAGGAAGTGGCTCTGCCAGGCAGGACTATGTGGAAAGGGTTT
TTCCCTAGCACACGAAAAAGCCCCCTCCCTGGATTCACTGTTCTTATTGGAGGGAGAACGGGAATTGCACTTC
ACACTGCCATCAGGGTTAGTTGACCTCATAATGGGCCACCTTCTCGACTTGGCCAGGATTCCCTCAAAGA
AAACGACTTCTTCATTCCCTAACGCTGTGGCCCAAATGGTGGACCAATGATGGTGGAGGGGGCAACCCCC
CAGTAGCTTGCCTGCTTTATAAAGTTGAACAAATTGAATTAGACATTCAAGGCTAACCTGCCTTCTAGTAC
TCCCTTGGCATGGCAGGGTTGAGTCAGCAGAACGGATTCCCTGAAATAAGTTATTTAAAT
TGAAAAAAAAAAAAAA

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MRQTEGRVPVF'SHEVVPDHLRTKDPVEEEQEQLTTDAARIGADAAQKQIQSLNKMCSNLLEKISKEERESESG
GLRPNKQTFNPTDTNALVAAVFGKGLSNWRPSGS SGPGQAGQPGAGTILAGTSGLQQVQMGAPSQQQPMLSGV
QMAQAGQPGKMPGSIKTNIKSASMHPYQRPSCLGF ILAIPLRRVKKLLGQEGKKNAHLQLW

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FIGURE 28

GGAGCTCCAGGCCACATCCGAGTCAGCCACCTCGCGCCGCCTCCAGGAGCAAGGATGGAGAGGCIGGTGATC
AGGATGCCCTCTGTATCTGTACCTACAGCCTGGTTGGTCATGGCAGCAGTGGTGCTGTGACAGCACAA
GTGCAAGTGGTACCCAGGATGAAAGAGAGCAGCTGTACACACCTGCTCCCTAAAATGCTCTGCAAATGCC
CAGGAAGCCCTATTGTGACATGGCAGAAAAAGAAGCTGTAAAGCCCAGAAAATGGTCACCTCAGCGAGAAC
CATGGGGTGGTGTACCCAGCCTGCCTATAAGGACAAGATAAACATTACCCAGCTGGACTCCAAAACCTCAACCAC
ACCTTCTGAAATATCACCTGGAGGATGAAGGGTGTACATGTGCTCTCAATACCTTGGTTGGAAAGATC
TCAGGAACGGCCTGCCTCACCGTCTATGTACAGCCATAGTATCCCTCACTACAAATTCTGTAAAGACCCAC
AATATCACTGCTCTGCCACTGCCCGCCAGCCCCATGGCTTCTGGAAGGTCCCTGGTCAGGGATTGAAAAT
AGTACAGTGACTCTGTCTCACCAAATGGGACACGCTGTACCGACATCCTCCATATCAAAGACCCCTAAGAAT
CAGGTGGGAAGGAGGTGATCTGCCAGGTGCTGCACCTGGGACTGTGACCGACTTTAAGCAAACCGTCAACAA
GGCTATTGGTTTCAGTCGCTATTGCTAAGCATGTTCCCTGGTAATTCTCTGCTTAATCTCAATCTTA
CTGTAAGTGGAAACGTCAACCGAATCAGGACCGAGAGCCCTAACTAAGTCACACAGCACCCCTGAAAGTGAATCCCT
GGTCTACTTGAATTGACACAAGAGAAAAGCAGGAGGAAAGGGGCCATTCTCAAAGGACCTGAAAGAGCAAA
GAGGTGGGAGCCTAAAGGATCCCACGACTTTTACTGCCATCTGAGCTACTCAGTGTGAATCCCAAG
AGGAAGTCAGTTACCTCAGGTCTGTAGGACTTGATTTGAAAGCAATGCCATGTTATGGTTGAAG
GGCACTGGACTTAGTATCAGGAGCACTGAGCTCACAGACTGACTTGGGCTCCTACTGGTGGGACCTCTGTTAGT
CACTTACCTCATCCAAAGTATAAGGAAATTGGACCAATAATTACACATAGCTCTAAACTTAATTAAAAT
GTAATTCCAGAAAAAAAAGGAAATAAGCAAAGGGGAAGAATTGAAAGAGAGAGAAGAAATACAGAG
CTTACCTTGGCTTCTGATGTTACATCTCTCTTCTAGGTCTATGAGTCTGTTCCCT
ATTGGTATCTAGTCCAGTCTCTGCTACTGCTTGTCTAATAGCTGGCCTTGCTAGAATCCTGGTTCACTGCTG
TTCTCATGTGCTCTATGAGATTACTCAACACAAATAGGACTGAATTATTGTAAGTAACATTGGCAATCT
IAACTTATTCACTTAACTTATTGTTAGCTAGATAAAATATTGTTAGTCTTAGACAATAGCTCACATTGAG
AAGCATGCCCTCCCTGCCATTGTCTTATAACATGACCCAGCCCTATTACGTCAATTCTAAATTGCTCAT
ATAATGAAAATACATTATGAAAACAGATGTTAGGAGATTCCCTGTATAGCAGTCAGCCAATTCAATGCTTTGT
CTCTGCTGGCTCTTTCCATGCTTAACCTTCCAATAGCAGAGGAGGCAAATATGAGCATAACATCCCTT
GTTCTAAAGATATTGTTCCAGCTAGTGAATGATGTTGAATCTTAATAACCATAATTAGTGTCTTTCAGTAT
CTTCTGCTTTGCTGTCTATCCAGTGGCCTAGGAATTAAGTGTAAAGTTGTTTGCTGTTAAATTGGATATT
TATATATATATATAGCAAGATTTCATGTGTTATTAAATTCTGTATTGTTCTATATTGTAGTAAATATT
GAACAATTAAAAGTGTGACTCCAAAAAAA

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FIGURE 29

MERLVIRMPFCHLSTYSIVVVMAAVVLCTAQVQVVTQDEREQLYTPASLKCSLQNAQEALIVTWQKKKAVSPENM
VTFSENHGVVIQPAYKDKINITQLGLQNSTITFWNITLEDEGCYMCFLNTFGFGKISGTACLTYYVQPIVSLHYK
FSEDHLNITCSATARPAPMVFWKVPRSGIENSTVTLSPNGTTSVTSILHIKDPKNQVGKEVICQVLHLGTVTDF
KQTVNKGWFSVPLLLSIVSLVILLVLISILLYWKRHRNQDREP

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FIGURE 30

AGCGAAGTGTGGCTTCAAGGAATACAACATAAAGGCCCTGACCGTTGCAAATAGACTAAAGTGAACACA
AATCTGAATGAAGATGAAGTTATTTCAGACCATTGCAGGCAGCTCAGGAGTCAAAGTTTCTGTGGAATCAGC
TGCCCTGTGGCTTCTACTTCCTTACTCATGTGGCCGGAAGAAAAAGTGAACCCATATGAAGAAGTGG
CCAAGAAAAATACTCTAATTAGTTCACTGTCTGTCTTGTCATCAGAGGCCGTCGCCAGACCCGGGATCGGTGGA
GGAAGATGCTTGCTCTGTGGACCCGTGAGCAAGCATAAGCTGCCAAACCAAGGTGAGGACAGACGAGTGCCACA
AAACTGGTTCCATCTCAATCCAGAGAGAAGTGATAAACCAAATGCAAGTGATCCTCAGTTCTTGA
CCCCCTGCAAAGGAATGTGATACCAAGTGTGACCCGAGTCCTCAGCAGACCATGACAAAACAACAGGTTTCTT
GTTGGAGAGGTGAAACAGCGGATGATTCTGGAAC TGGGAGAAGATGGCTTAAAGAATAACACTTCAAACGTCTT
TTTACAAGGGAAACGGTTCCACGAAGCCTGGAAAGCATACTTCACCCCAGGAAACCTAAAAGAGAGAGATGA
AAATCTCCTCAAGTCTGGTACATTGAAAGTGTCCAGCATAATTCTGAAAGATGTCAGTGGAGTGCAGCTCTTGA
AAGTGTGTTCAACATGAAACCTTAAACTATATAGGTCTGCTGGACTGTGTTGAGTATCAGGGCAAGCTCTG
TGTGATTGATTGAAAGACATCAGAGAAACCAAGCCTTTATTCAAAGTACATTGACAACCCACTGCAAGTGT
GGCATACATGGGTGCCATGAACCATGATACCAACTACAGCTTCAGGTTCAATGTGGCTTAATTGTTGGCTTA
CAAAGATGGATCACCTGCCACCCACATTCTCATGGATGCAGAGCTCTGTTCCAGTACTGGACCAAGTGGCTTCT
TCGACTAGAAGAATATACGGAAAAGAAAAAGAACCCAGAATATTCAAAGTACATTGACAACCCACTGCAAGTGT
TTGCTATTGGGAACATTCACTCACAGT TTGGGAACATATATTGCTGTTACTCCAGTGTAAAAATGA
GGTGCCACTGGATCTGAGTGTACACCGAACACAAGTAGAAGTATTAAATTGTTGAATGTGTTGTTACAAAAAG
ACTGAAAAGCCCCAAAGTCTAGATATAAGACCTAGACTTCGGCACCGAAATCCAGCTATGCTACCTCTTATT
TACCTGAAAGGAGGACACCGCAGGATGGCAGTCATGCTGGTACTCTGACTCCCTGAGGGACATTGGGGGG
GGGGGGCGTGGTCCCAGGCAGGATGCCAGTCTTGAGCTGAGATTGGAGGCAGTGAGGCTGAGGGTGCCAAGA
TTTCCCCAGGGTTACCCAGAGGGGAAGGGGCTACATGCCCTCAGCTGTGTCAGGGAGGACACATCAGCCCAC
ACCGCTGCCAACACCAATGCCCTAAACTTGTTCACTACATTGGGTTCTATATATTCACTGGAAAAGCTT
ACATTAAACCTTTGAAAAAATAACGTGATTAGCCTCAACTAAACATTGCTGACTATAAGACAGTATATT
ACCATGTCGCTGGCAATATGTCATTGCGTAACACCAATAACCCCCCAGAACAGTAGCCAGAGGCCAGTTGAACAT
CACATTCTAAGTGTGTTAGTAACTATTCTGGCGTGAGTCACAGACATGAGTACAGTCAATTATTGTTG
TGGAGTTTCAGCTATAGGGAGGGAACTATTAAATCCATTGTTCTATTCAATAGGTAAATAAAATTAGT
TGTCCCTGGTTGGAACTTAAATGCCATTACAGCCCTGGGGAAAGGGTTCTGCTTATGGAGTGANCTT
AGCATTAAAGTATACTAGTTGCTGCCTTAAATAGTAGCCTGCTACAATGACTTCTGGTAGCCATTTCATA
AGAAATAAAATACAAGATATGAGTAAAAAAAAAAAAAA

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FIGURE 31

MKMKLQFQTICRQLRSSKFVESAAALVAFSTSSYSGRKVVNPYEEVDQEKEYSNLVQSVLSSRGVAQTPGSVEED
ALLCGPVSKHKLPNQGEDRRVPQNWFPIFNPERSDKPNASDPSVPLKIPLQRNVIPSVRLQQTMTKQQVFILE
RWKQRMILELGEGDFKEYTSNVFLQGKRFHEALESILSPQETLKERDENLLKSGYIESVQHILKDVS瓜RALES
VQHETLNYIGLLDCVAEYQGKLCVIDWKTSEKPFPFIQSTFDNPLQVVAYMGAMNHDTNYSFQVQCGLIVVAYKD
GSPAHPHFMDAELCSQYWTWLLRLEEYTEKKKNQNIQKPEYSE

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FIGURE 32A

ATGGCCTCAGGAGCCGGAGGAGTCGGAGGGGGCGGTGGCGGCAAGATCCGGACGCCGGTGCACCCAGGGCCA
 ATTAAGCCTTACCAAGCAGGGCGACAACAGCATCAGGGCATTCTTAGCAGGGTTACAGAACTGTAAAGAATATT
 GTGCCAGGGTGGTTACAAAGATACTTCACAAGAAATGAAGATGTATGCAGCTGTCAACAGACACAAGCGAGGTT
 CCACGCTGGCCAGAAAATAAAGAGGACCATCTGGTATATGCCGATGAGGAGAGCTCTAATATTACTGATGGGAGA
 ATCACACCTGAGGCCAGCAGTCAGTAATACAGAAGAACCTCAACAACACTAGTACTGCTTCAAATTATCCAGATGTG
 TTAACAAAGGCCTCTCTCATCGGAGCCATCTGAATTTCAGTGGATCCCCTGCATTACACTGTCAGCCA
 TCTACATCCTCGCATTCCCAATTGGCAGTCCGGATTTCCTGTAAGGAAATTAAAGATTCTACCTCTCAG
 CATGATGATGATAACATCTCAACTACCAGTGGTTTCTTCAGAGCTTGATAAAAGATATAACTGTTCAAAG
 AACACTTCATTGCCACCTCTGTGGTCCCCAGAAGCTGAACGTTCACTCAGCAGCACACTGCCACCAGC
 TCAAAAAAACCAGCATTCAACTTGCTGCCTTGGAACACTTCCCCTCACTTGGGAAATTCTCAATCCTTAAA
 ACCAGTCAGCTGGAGATTCCCTTTTATCCTGAAAAAACACATACTGGGGCAGCAGCTGCTGTAAGACAG
 TCTAAACTACGAAATACACCTTATCAGGCACCAAGTAGAAGACAAATGAAAGCTAACGAAACTCAGTGCACAATCT
 TACGGTGTGACCAGTCAACAGCTGGGAATTGCAGTCTTAGAGAAGATGTCAAGCCCTTAGCGGATGCA
 AAAAGAATTCCATCCATTGTTCTCTCTGAAATTCTCCTCTGATAGGAGTGGGATAGATATCACAGATT
 CAGGCCAAAAGAGAAAAGTGGATTCTCAATATCTCCTGTTCAAGAGACTATGACCCCAAGCCAGTTCCATA
 GCAACAAATCGAAGTGTATTAAACCATCTGACTCCTCTGGTGAATTAGGAAGACTAACAAAGAATA
 GATAACAAGTGCAGTACTGGATATGAAAAAAATATGACACCCGGACAAAATAGAGAACAAACGAGAAAGTGGCTT
 TCATATCCAAATTCACTGCTTGCTGAGCCAATGGTTATCTCTGGAGTAGGTGGTGGAGGTGGCAAGATGAGA
 CGAGAAAAGACAGCCTTGTGCTCTAAACCTCTGGAGGAGGAAATGAAAGTCCAGTATTACGAAAATC
 TCTCTACCGATCACCAGTCTTCACTGCCTACCTTAATTCTAGTCCCTGAGATCACAACTCTCTCCATCA
 CCCATCAATTCTGCTCAAGCATTAAACAAAGGTACAAATGACCTCTCCAGCAGCAGCTGGCAGTCCATGTT
 AAATTTCATCTCAATCGAAAATCTACTGAGGAAATGTACTACCTCCATCATCTATTGGATTACATTAGT
 GTGCCTGTTGCAAAACAGCAGAACTTCTGGTTCTAGTAGTACTTTAGAACCAATTATAAGTAGTTAGTCAGCTCAT
 CATGTCACTACAGTGAACAGTACAAATTGTAAGAACACACCACCTGAAGATTGTGAGGGCTTTAGACCTGCA
 GAAATCCTGAAAGAAGGAAGTGTCTAGATATTCTGAAAAGCCCTGGTTTCGCATGCCGAAGATAGATTCTGTT
 GCTGCTCAGCCCACCGCAACAAGCCAGTAGTTTATACAAGACCAGCAATAAGTAGCTTTCTCTAGIGGAATT
 GGGTTGGGAGAGTTAAAGCTGGTCATCATGGCAGTGTGATACATGTCTACTCCAGAACAAAGTTACAGAC
 AACAAATGCATAGCCTGTCAAGCAGAAAATTGTCACTGGAGAGATACTGCTAAACAGACTGGAATTGAAACACCA
 AATAAAAGTGGAAAACAACCTTTCTGCATCAGGGACAGGCTTGGAGACAAAATTAAACAGTGTAGGGACT
 TGGGATTGTGATACCTGTTAGTGCACAAATAAACCTGAAGCAATAAAATGTGAGCTGTGAAACACCCGAAACCT
 GGAACCTGTGTGAAGCGAGCCCTACATTGACAGTGGTTGGAAAGTGTGAGACTATGACTGCTTCATCTCC
 AGCTGCACTGTAACCAACTGGTACCTTAGGATTGGAGATAAAATTCAAAAGGCCATTGGATCTGGGAGTGTCA
 GTATGCTGTGTTCTAATAATGCAGAAAGACAATAAGTGTGTCCTGTATGTCTGAGAAACCAGGAAGTTCAGTA
 CCTGCTCAAGTAGCAGCACTGTAACCTGTCCTGCCTCTGGAGGCTCTAGGATTGGAAAGTTCAAGAAA
 CCCGAGGGAAAGCTGGACTGTGAATTGTGCCTAGTGCAGAATAAGGCAGACTCTACCAAATGTTGGATGTGAA
 AGTGCACAGCCAGGCACAAATCTGGTTAAAGGCTTGGACACATCTCCTCATCTGAACTCAGCAGCTCC
 TCATCCTCAAAATTGGTGTCTCATCATCCTCTTCAGACTTAAACAGCACTGGAAATTTTAAA
 TTTGGAGATCAGGGAGGATCAAAATAGGTGTGTCATCTGATTGGGCTTATAAACCCCATGAGTGAAGGCTT
 AAATTCTAAACCAATAGGAGATTAAATTGGAGTTCTGATCTGAATCTAACGCCAGAAGAATTAAAAGAT
 AGTAAGAATGATAATTAAAGTTGGACTTTCTCTGGTTAAGCAACCCAGTTCTTAACCTCCATTCAATT
 GGGGTATCTAATCTGGACAGGAAGAAAAGAGGAACCTGCCAAATCTCCTCTGCAGGTTTAGCTTGG
 ACAGGTGTTATTAACTCCACCCCTGCTCTGCTAACACCATAGTGACCTCTGAGAACAGAGCAGCTCAACCT
 GGAACCATAGAAACCAAGAGGTGCTTCAGTGGCTCTTCACATGTAAAGACATCAGAAGCTAAAAGAAGAATG
 CCTGCCACCAAGGAGGATTCTCTTGGCAACGTGGAGGCCCTCTGCCATCTGCCAGTGTGTTGG
 GGAAGGACAGAAGAGAAACAGCAAGAGCCTGTCACCTCTACTCCCTAGTTTGGGAAGAAAGCTGACAATGAA
 GAGCCAAAGTGTCAACCAGTGTGTTCTGGAAATTGAGAGCAACCCAGAAGATGAGAACATTCTCAAAGTCCACA
 TTAGTTTAGTATGACAAACCATCTGAGAAGGAATCTGAACAGCCAGCAAAAGCCACTTTGCCCTGGAGCT
 CAAACTAGTACTACAGCTGATCAAGGTGCAGCAAAGCCAGTTTAGTTCTGAACACAGTCTCTAGTTCA

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FIGURE 32B

AGTACACCAGCCACTTCTGCTGGTGGGCATATTGGTAGTCCACCTTCCTCCAATCCACCTGTGGCTACC
TTTGTGTTGGACAGTCCAGCAATCCTGTGAGCAGCTCTGCCCTTGGTAACACTGCTGAATCCAGCACCTCTCAG
TCTTGCTATTTCTCAAGATAGCAAACCTAGCAACCACATCCAGCAGGTACAGCTGTCAACCCATTGTCTTT
GGTCCAGGAGCAGCAGTAATAACTACCACCTCTGGTTCGGCTTGGAGCCACAACCACATCTAGCTGTGCA
GGATCCTCCCTTGTATTGGAACGGACCCCTCAGCACCATCTGCCAGTCAGCATTGGTGCTAACAGACCCCA
ACATTGGACAAAGTCAGGTGCCAGCCAGCCAAATCCCCCAGGCTTGGATCTATATCATCTTCCACAGCATA
TTTCCCACGGTTCTCAGCCTGCACCACCTACTTTGGGACAGTGTCAAGCAGTAGCCAGCCCCCTGTGTTGGA
CAGCACACCTAGTCAGTCTGCATTGGCTCTGAAACAACCTCTAATTCTAGTTGGCTTCCAGTTGGCAGCAGC
ACTACAAATTCAACTTCACAACAAACAGTCCATCAGGAGTGTACATTGGTGCAAATTCTAGCACACCTGCA
GCCTCAGCCAGCCTCAGGCTCGGGGGCTTCCATTAAACCACTGTCAGCAGCATTACAGTGGGGTCAAAT
GGGAAAATGTGTTCTCTTCTGGAAACTCATTCTGGTCGAAGATAAAAGACTGCTGTTAGACGCAGGAAA
TAAAGGTCACATTGGTGTACTCAATTAAACAACAGCTGGTGCCTGCTTCAAGATACTGGATTGACTTTG
TGCTGGGGTTATCTGAAGTCAGATCTGCTTAAGGACTTCTTAATTGGAAATTCTCCTTCTTTCTGTTA
CAGAAGCCCCACCCCTGCCTCACCCACCCCTTTAAATAAAATAAGCTAGACTGGTGAUTGATTCTCAGCAA
AAATTTTATGATCCAGCAGATTATTCACTGATTGACATAGCTGGCTGTACCCAGGAATGGAGCCTGCACGG
TGAATGGCTTGTATAGAACCTCTTGTCTACACCATTATGTGCGCTGATAACGTTCATGGAACCGTGTGAAATT
GTAATTATATCTGAGGAATTCTGTATAGATTAGAATTCTGTATAGATTAGAGAGTGTGAAACGGATGATTCTA
TGCTGAGTTGTGCTGGTGTATGTGAAGTGAGTGAGTTGGGTGTATTGTGCGCTAAACTTTCTGATAGAGGA
AGCCTGATTAAAGAATGGTCCGTGCTAAGGACTTGTAGATCTAGTTCACTCTCCATTAAATAATTATGCTAT
TTCTATATTTCATTCTCTTACACCTGTCTGCCCTTTCTTCAATTATTTATTATGAAACTTGTGAAATACAATT
TTGTTCTGTACTTTGGCATAACATAATCTGTGAACCTGAAATTGAAATTGTGTTAGAGATTTTTGTGTT
GTTGTTAGCTGTCTCAGATTATTATGAAATCCCATTATCAAAGTGCCTAAATCCATTGGAAATCT
TTAAAAAAATGGGGATTCTAAAGTGAATTATTGGCTTTCTGATCCAGTTGTGTTGGACCAAAACC
AGTATTGTACAAAGTATTAAGCATATAATTAAATTACTAAATGGCTGTGGTGAUTTTGGATAATAAGGA
AAAGTTAATATTAAGCCATGTTATTACAGTATAATTAAACATGTTAACCATGGGATAATGCCATCAATAAA
AAATTATGACAT

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FIGURE 33

MASGAGGVGGGGGGKIRTRRCHQGP IKPYQQGRQQHQGILSRVTEVKNIVPGWLQRYFNKNEDVCSCSTDTEV
PRWPENKEDEHLVYADEESSNITDGRITPEPAVSNEEPSTTSTASNYPDVLRPSLHRSHLNFSMLES PALHCQP
STSSAFAPIGSSGFLVKEIKDSTSQHDDNISTSGFSSRASDKDITVSKNTSLPPLWSPEAERSHSLSQHTATS
SKKPAFNLSAFGTLSPSLGNSSILKTSQLGDSFPYGKTYGGAAAARQSKLRNTPYQAPVRRQMKAKQLSAQS
YGVTSSTARILQSLEKMSPLADAKRIPSI VSSPLNSPLDRSGIDITDFQAKREKVDSQYPPVQRLMTPKPVSI
ATNRSVYFKPSLTPSFRKTQNRIIDNKCSTGYEKNMTPGQNREQRESGFSPNFSLPAANGLSSGVGGGGKMR
RERHAFVASKPLEEEEMEVPLPKISLPITSSSLPTFNFSPEITTSSSPSPINSSQALTNKVQMTSPSSTGSPMF
KFSSPIVKSTEANVLPSSIGFTFSVPVAKTAELSGSSSTLEPIIISSSAHVTTVNSTNCKKTPEDCEGPFRPA
EILKEGSVLDILKSPGFASPKIDSVAQPTATSPVYTRPAISSFSSSGIGFGESLKAGSSWQCDTCLLQNKVTD
NKCIACQAALKSPRDTAKQTGIETPNKGKTTLSASGTGFDKFKPVIGTWDCDTCLVQNKPEAIKVACETPKP
GTCVKRALTLVVSESAETMTASSSCTVTGTLGFDKFKPIGSWECVCCVSNNAEDNKCVSCMSEKPGSSV
PASSSSSTVPVSLPSGGSLGLEKFKKPEGSDCELCVLVQNKADSTKCLACESAKPGTKSGFKGFDTSSSSNSAAS
SSFKFGVSSSSSGPSQTLISTGNFKFGDQGGFKIGVSSDSGSINPMSEGFKFSKPIGDFKFGVSSSES KPEEVKKD
SKNDNFKFGLSSGLSNPVSLSLTFQFGVSNLGEEKKEELPKSSAGFSFGTGVINSTPAPANTIVTSENKSSFNL
GTIETKSASVAPFTCKTSEAKKEEMPATKGGF\$FGNVEPASLPSASVFVLGRTEEKQQEVTSTSIVFGKKADNE
EPKCQPVFSFGNSEQTKDENS SKSTFSMSMTPSEKESEQPAKATFAFGAQTTADQGAAKPVFSFLNNSSSS
STPATSAAGGIGFSSTSSSNPPVATFVFGQSSNPVSSAFGNTAESSTSQSLLFSQDSKLATTSSGTAVTPFVF
GPGASSNNTTSGFGF GATTSSSAGSSFVFGTGP SAPSASPAGANQPTFGQSQGASQPNPPGFGSISSSTAL
FPTGSQPAPPFGTVSSSQPPVFGQQPSQSAFGSGTPNSSSAFQFGS TTNFNFTNNSPSGVFTFGANSSTPA
ASAQPSGSGGFPFNQSPAFTVGSNGKNVSSSGTSFSGRKIKTAVRRK

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FIGURE 34

CGCTAAGCGTCCCAGCCGATCCCTCCGCAGCAGCGACGGCGGCCGGACCGCGGGCTGTGAACCATGAACACCC
GCAATAGAGTGGTGAACTCCGGGCTCGCGCCTCCCCCTGCCTCCCGCCCGACCCGGGATCCCCAGGACCCTCTG
GGCGGCAAGGGGAGCTGAGCCCCGTGGAAGACCAGAGAGAGGGTTGGAGGCAGCCCCCTAAGGGCCCTCGCGGG
AGAGCGTCGTGCACGCAGGGCAGAGGCAGAACAGTCATACACCTGATAGCACCAAATAAAACGGAGAAATG
AGATACAAAGAATTGCGGAGCAGGAGCTGGCAACCTGGAGAAGTGGAGGAGCAGAACAGAGCTAAACCGGTT
ACCTGGTGCCCAGACGGTAGGTGGAAGCCAGTCAGAAACTGAAGTCAGACAGAAACAACACTCCAGCTGATGC
AATCTAAATACAAGCAAAGCTAAAAGAGAAGAATCTGTAAGAATCAAGAAGGAAGCTGAAGAAGCTGAACCTC
AAAAAAATGAAGGCAATTAGAGAGAGAAGAGCAATAAACTGGAGGAGAAAAAAAGACTTCAGAAGAAAACCTTAGAA
GAGAAGCATTAGAGAGCATCAGCAATAACAAACCGCTGAGTTCTTGAGCAAACCTGAACACAGAACATGCCAGACA
GAAGTGCCTGTCAAAGTGTGTTGGCCCAACATCCTCAACATGGGCCAGAAGCTGGGCTTACAGAGATTCTC
TAAAGGCAGAAGAAAACAGAAAATTGCAAAAGATGAAGGATGAACAACATCAAAAGAGTGAATTACTGGAACGTGA
AACGGCAGCAGCAAGAGCAAGAAAGGCCAAATCACCAGACTGAACACAGGAGGGTAAATAATGCTTTCTGG
ACCGACTCCAAGGCAAAGTCACCCAGGTGGCCTCGAGCAATCTGGAGGCTTGGAAATATGAATAGCGGTAAACA
GCTGGGGTATATGAGAAAATTGACTCCTATCTGGCCTTCATCAACTGACCTCGAAAAGCCTCATGAGATGTT
TTCTTAATGTGATTTGTTCAGCCTCACTGTTTTACCTTAATTCAACTGCCACACACTTGACCGTGAGTC
AGGAGTGAUTGGCTTCTCCTTGTCCCTATTATGCATGTTGGAGGAGCTGATTCTGAACCTATTTAAACTC
TACTGCCAGGGAAATGCTACATTATTTCTAATTGGAAGTATAATTAGAGTGTGTTGGTAGGGTAGAAAAGA
GGGAGTCATTGATGCTTCAGGTTAATCAGAGCTATGGGTGCTACAGGCTTGTCTTAAGTGACATATTCTT
ATCTAATTCTCAGATCAGGTTTGAAGCTTGGGGCTTTTAGATTAACTCCACTTTCTTATGGTACA
AATATGTACAAAAGAAAAAGGTCTTATATTCTTACACAAATTATAAATAATTGAACTCCCTGTAAAA
AAAAAAA

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FIGURE 35

MNTRNRVVNSGLGASPASRPTRDPQDPGRQGELSPVEDQREGLEAAPKGPSRESVHAGQRRTSAYTLIAPNIN
RRNEIQRIAEQELANLEKWKEQNRAKPVHLVPRRLGGSQSETEVRQKQQQLQLMQSJKQKLKREESVRIKKEAEE
AELOQMKAIQREKSNKLEKKRLQENLRREAFREHQYKTAEFLSKLNTEPDRSACQSAVCGPQSSTWARSWAY
RDLSKAEENRKLQKMDEQHQKSELLELKRQQQEGERAKIHQTEHRRVNNAFLDRLQGKSQPGGLEQSGGCWNMN
SGNSWGI

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FIGURE 36

AGTGTCTCCTGATAACCGGATGTGAGGCATCCGCTGGCGTAGTCTGACCCCTCCGCAGGCAAAGGAAGAAGC
TGAAACCTATCAACACTCTCAAAATGCAATGGAATGTACCACGGACTGTATCTGACTGGCACGCCAGGACATGC
TTGGAACCACATAATGCTGGCTCTTGGACACTGTCAAATGTAAGGGACCTTACTTTATAACAATGCTGAA
TCCAAAGTGGTTTGGTACAAGGCCCTCAAAAACATGGTGCAATTATCTGCTGCCAGTGTGCAAAGGAA
AGGAGGCCATTGGATGCTCATCCACCCCAACCAGGAGTCCTCGCCATAAGCAAGGGAAAGCAACATGTTCATTC
AGGAGGGTTTTTCATCCAGTGCCACAGCTCAGGGAACTCCGGAAAAAAAGGAAGAGGCCGTATCCTTGCAAGAC
AAATCTATTAGTCTTATCAACGATTCAAGAACAGACATTAGACAGTATGGAAAAGTTCTGATTCCAGTGCATCTA
ATAACTCTGGTGTGGTGGAAACATTTATTATGCAGCCTGAAAGGAGTGAATGTCGTTCTTCTAGAA
CTCATTGGTTACCTGACAGTGTGGTAAGCATCTGAAAAACTCCCAGAGTGGAAATGCCCTCACAGCATATGCC
TTGTTTAAGATTGCAACACCTGCTCGGTATACCGTAGCTTGGGAGGAACATCTGCACTGTGAAGTATCTGCGC
AGTCATGGCTACATGTCCACGCCGCCACCGTCAAGGAGTATCTGCAAGGACAGGATGGAAGAGACAAGGAGCTT
ATCACAGAGAAAATGGAAGAAACAAAAGATAGACTCACTGAAAAGTTACAAGAACCAAGAAAAGTTCTT
AAGAAAAAAAGTGGAATAAGGTGCTTATATAGCAGTATAGAAAATCCTGCACTTTAACCTTGGAAACTATGG
GCAAAGATACTGTGTCTGATTATTTTGGTAGTTGCCGAAATATACTAGTTCTGAGGGTTAAAGAAGTA
AAATACCTTTAAAGTTAAATATCACTAGAAAAATCAGTGTATTACAAGGGAAGAAATGAACCCAGTTAAGA
ATTTGCCATCAGTAGCAGTATTAAAGCAGTGGTTAATGTCTAGAAGTCAGACTCTTTCAAGGTCTTCAGAAC
CACACTGATTTCTGTTGTCAGCTGTAATTGACACACACTAGGCAGCTGACTCCTGAAATATCCAGTGTGA
CCCATAAAATAGTGTAAATACCGGATCTTAATTTTATGTATTCAAGATTAACTATATTCACTGACGT
AATTGGAGACAAACTAGCATCATCAAAACTGCCGTAAATAAGGTGTTAGTCTTCTATAAAAACAGAATAGA
GCAGTTACCTACCAGTTAAATATCTTATATGAAGAAAATAGAATAAGATCCAGTCATATATGTAATAAGATG
TACTGATTGTACGTAAATGAAAATGGACCTTAAATTATTTTACCTGAAGCTGTCAATTAAACCTCTGTTG
GCAAATATATATATGGTGATGGTACTTTCAAAGTGTGATTAGTGGTGATCACCTCAAACATAAACCTCTGTTG
TGAACCAAAAAAAAAAAAAAA

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FIGURE 37

MQWNVPRTVSRLARRTCLEPHNAGLFHCQNVKGPLLLYNAESKVVLVQGPQKQWLHLSAAQCVAKERRPLDAHP
PQPQGVLRHKQGKQHVFSRRVFSSSATAQGTPEKKEEPDPLQDKSISLYQRFKKTFRQYGVLIPIVHLITSGVWFG
TFYYAALKGVNVVPFLELIGLPDSVVSILKNSQSGNALTAYALFKIATPARYTVTLGGTSVTVKYLRSHGYMSTP
PPVKEYLQDRMEETKELITEKMEETKDRLTEKLQE TKEKVSFKKKVE

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FIGURE 38A

GGCACGAGGCTGCGCCTCGGGGTCCGGGTCCAGGCTCGGAGCGCGGCACGGAGACGGCGGCAGCGCTGGACTAG
 GTGGCAGGCCCTGCATCATGGAAACTCTTCTAATGCAAGTGGACTTTGCCATACGCCCTAAAGATACTGT
 GTCAAGATAACCCCTCGCACAAACGTGTTCTCTGTGAGCATCTCCCTGCCCTGCCATGGTTCTCCTAG
 GGGCAAAGGAAACACCGCAACCCAGATGGCCAGGCACGTCTTAAACACAGAGGAAGACATTATCGGGCTT
 TCCAGTCGTTCTCACTGAAGTGAACAAGGCTGGCACACAGTACCTGCTGAGAACGCCAACAGGCTCTTGAG
 AGAAAACCTGTCAGTCCCTCAACGTTAAGGAATCCTGTCTCAATTACCATGCTGAGCTGAAGGAGCTT
 CCTTATCAGAGCTGCAGAAGAGTCCAGGAAACACATCAACACCTGGGTCTCAAAAAGACCGAAGGTAAAATG
 AAGAGTTGTCGGGGTAGCTCAATTGATGCAGAAACCAGGCTGGTTCTGCAATGCCATCTACTCAAAAGGAA
 AGTGGAAATGAACCGTTGACGAAACATACACAAGGAAATGCCCTTAAATAAAACCAGGAGGAGCAAAGGCAG
 TGCAAGATGATGATCAGGAGGCCACGTTAAGCTGCCACGTGGCGAGGTGCGCGCAGCTGCTGGAGCTGC
 CCTACGCCAGGAAGGAGCTGAGCCTGCTGCTGCTGACGACGGCGTGGAGCTCAGCACGGTGGAAAAAA
 GTCTCACTTTGAGAAACTCACAGCCTGGACCAAGCCAGACTGTATGAAGAGTACTGAGGTGAAGTCTCCTC
 CAAAATTAAACTACAAGAGGATTATGACATGGAATCTGTGCTCGGATTGGAAATTGTTGATGCCTTCCAAC
 AGGGCAAGGCTGACTTGTGGCAATGTCAGGGAGAGAGACCTGTGTCTGCTCAAGTTCGTGCACAAGAGTTG
 TGGAGGTGAATGAAGAAGGCCACCGAGGCAGCGCAGCGTCAGCTGCTTGTAGTTGCAAGAGTGTGATGGAAT
 CTGGCCCCAGGTTCTGCTGACCACCCCTTCCTTCTTCATCAGGCACAACAGGCCAACAGCATTCTGTTCT
 GTGGCAGGTTCTCATGCCATAAAGGGTGCACTTACCGTGACTCGGCCATTCCCTTCCCTGTGTCAGGAT
 CCCCACACTACAGCTCCAAGAGGATGGGCTAGAAAGCCAAGTGCAAAAGATGAGGGCAGATTCCCTACCTGTG
 CTCATGATTGCCAGCATGAATTCATGATGCTCACACTCGTTATGCTACTTAATCAGAATCTGAGAAAATAG
 ACCATAATGATTCCCTGTTGATTAAAATTGCACTTACCGATAGGATGGCAAGCAAAGTCTTCTAGAATT
 CCACATGCAATTCACTCTGGCACCCTGTGCTTCTGACACTGCAATACATTCTAACCGCTGCCAGTG
 GTAATAATGGTCTAGATATTGCTACTATTATAGATTCTGGTCTAGCCTTATAAAAAGGTTGAAAA
 TGTACATTATATTATCTTTTTTTTTCTGAGACGCACTGGCTCTGTGCTGCCCCAGGCTGGAG
 TGCAGTGGCTCGATCTCTGCTCACTGCAAGCTCCGCTCCGGGTTCACGCCATTCTCTGCCCTAGCCTCCGA
 GTAGCTGGACTACAGGCCCGCCACCACGCCGGCTAATTGTTGATTAGTAGAGAGACGGGTTTACCG
 TGTTAGCCAGGATGGTGCATCTCTGACCTCGTGTGATCCACCGCCTGGCTCCAAAGTGTGGATTACAG
 GCTTGAGCCACCGCGCCGGCTATATTCTCTTCTGACATTACCAATCAGCAACTGCA
 CAAACACTGTTAGGCACGGGACACAAAGGGACAGAGCCATCCTCTTGACACCTGGTCTCAGTTG
 GCCCAACGTATATAGTTGACAATGACCAGGTTGACTGTTAATGTCCTCAACTTACCACTGGTAATCCTCTG
 TAGGGATCACATCTTCTTATGATATTGTTCTACCTCTAACAGTAAATTCCATTCAACCTTAAGC
 TCACCTCAAAATTCTCTTCTGAGAAGTTCTCTTCTCCGCAACCAGATGTACATATTGAAACTCTTGTACT
 TGGAGGGACTCTTCGTTGAGTTCTTATTATTATTAATCTGTATCTTAGATAGTCCTCAACCA
 AAGGTTGGACTCTGCTTACATATCTGGTCCCCCTCATAGTCAGTAATAAGTAAGTTGATTATACAGAGCT
 ATGTAACCTATTTTAATGGTTGATATCAGTGGTTTTTTAAGAATTTTTATTGAGGTAACCT
 CACATAACATAAAATTAAACTATTAAAGTGAGAAGTTCAGTGCACCTAGTATTGTTAACAATGTTG
 ACCACCTTATTTAAAGTCCAAAAAAATGTTCTCTCTAAAGGAAACCCCATCCATTAGCAGATACTCTC
 CATTCTCCCTCCAGCCCCAGAACCAATCTGCTTCTGTCTCTATGGTTTATCTATTCTGCTAT
 TTATATAAAATGAAATTGATGAGACCTTGTGCTGGCTCTTCACTTAGTACAAGTTTGAGATTATT
 ACATAGTAGCATGTATCAACACTTCATTGTTGAGGAAATTGTTATGTTATGTTAAGCACAATTATT
 TATCCACTCATTGATGGACTTGGTTGTTCTGACTTTGGCTATTGGAAATAGTGTGCTATGAATGTT
 TGTGTACCTGTATTGTTGAATGCCATTTCGCTTCTGGTATATCTAGGAGTGGAACTGCTGGTCA
 TATGTTAATTCTATGTTAGCTTTGAGGAACAGACAAACTGTTCCACAGCAGTTGAACCAATTCC
 CACCAGCAATGTATGAGAATTCCAATTCTGTCACCTCCACCAACACTTATTATTCTTCTTT
 AAAAATAAGTTATGGCCATCTAGGGTGTGAGTGGTATCTCATGTTTTTATTGCAATTCTATG
 TAATGAGCTAGAAACTAAAGTACAAACTAGATGGACATCCAGTCCCTTGTAGAGATAATGCTGAG
 AGATGAAAGACATTGTTGTTTGAACATGAGTGTGACAGTTGTTAAAAGCTTAGAGGAGGAATGAA
 AAGTGAAGTACACTTAGAAAAGGCCAACGGACATCTGGATGTCAAGTGCCTAGTTGAGTATTT
 TTTTTTTTTGAGACAGTGCCTCACTCTGTCACCCAGGCTGGAGTGTAGTGGCATGATGGCTCACTGC

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FIGURE 38B

AACCTCCTCCTGGATTCAAGCAATTCTCTTGCCTCAGCCCTCCAAGTAGCTGAGACTACAAGCACCCAC
CACACCCGGCTAATTTGTATTTCACTAGAGACGGGTTCGCCACATTGGCGTGTGGCTTGAACCTCTG
GCCTCAAGCAATCCGCCAACCTCAGCCCTCCAAGTGCTAGGATTACAGGCATAAGCCACTGAGCCCAGCCCTAG
TTCAGTATCTTATGTAAATTATAAACATCTGCAACATTATGTATCATATGCAGATACTTATTGCATTCTTT
ATTAGTGGTGAAAGTGTCTATGCATTATTGGCTCTTGAATTCCCTCATCTATGAATTGTCATTACACACCTA
CTTTCTGCTTCGTTTACATATGTCTTGCCTATTAAAGATATTACCCCTGTGTTTATATTCTCTCATTC
TTGTATTGCCTTTAAATTGTATGTTACAGTGTGTTCTATAAAACAGTGTGTTCTATAAAAAAAAAAAA
AAAAA

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FIGURE 39

METLSNASGTFAIRLLKILCQDNP SHNVFCSPVSISSALAMVLLGAKGNATQMAQALSINTEEDIHRAFQSLLT
EVNKAGTQYLLRTANRLFGEKTCQFLSTFKESCLQFYHAELKELSFIRAAEESRKHINTWVKTEGKIEELLPG
SSIDAETRLVLVNAYFKGKWNEPFDETYTREMPFKINQEEQRPVQMMYQEATFKLAHVGEVRAQILLELPYARKE
LSLLVLLPDDGVELSTVEKSLTFEKLTAWTKPDCMKSTEVEVLLPKFKLQEDYDMESVLRHLGIVDAFQQGKADL
SAMSAERDLCLSKFVHKSFVEVNEEGTEAAAASSCFVVAECCMESGPREFCADHPFLFFIRHNRANSILFCGRFSS
P

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FIGURE 40

GGGCACAGCGGACACCAGGACTCCAAATGGCGTCAGTGGTGAGTGTCCGGCCCCAGTACCAAGTGAAGGACAAG
AAACTTCTGGAGGTCAAACCTGGGGAGCTGCCAAGCTGGATTTGATGGGGACTTCAGTCCTAGTGGCATTTC
GGAGCGTTTCAAAGAGGTTACTACCGGTACTACAACAAGTACATCAATGTGAAGAAGGGGAGCATCTGGGGATT
ACCATGGTGCTGGCATGCTACGTGCTTTAGCTACTCCTTCTACAAGCATCTCAAGCACGAGCGGCTCCGC
AAATACCATGAAGAGGACACACTCTGCACCCCCCACCCACGACCTGGCCCGAGCCTCCGTGAGGAACAC
AATCTCAATCGTTGCTGAATCCTTCATACTCTAATAGGAATTAACCTCCAATAAAACATGACTGGTAAAAAA
AA

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FIGURE 41

MASVGEC PAPPVVKDKKLLEVKGELPSWILMRD E PPSGIFGAFQRGYYRYYNKYINVKKGSISGITMVLACYVL
ESYSFSYKHLKHERLRKYH

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FIGURE 42

AGCCGGCCTGCAACCTGCCGGGGCGCTCCGCAGCGCAGCCCTCAGTGGCTCTCCACAGCCACCTCCGG
AGGGATCTGGCTGAGGAGGAAGTGGAGGTGTCAGTGGCCCTTGCCCCAATCTGTGTTGAGCTGAAGG
GGGACTACAGGTTCGAGAGTTATGGGTGCTACATGTGCTTCAGAGCAGTAGTGTGAGGAAGCTGGAGTGG
ATGGCAGGACGGCCTCATCCCTATGATGGTAACCCAGTGATCCAGAGAAATTGGGATCGGAAATTGCAAGT
AGTCAAACGTTTATAAACATTCAAGTACTTCCCTCGTATTGCTAAAGGAGGAGTTGACCACACCAAAATGAGT
CTACATGGTGCTAGTGGGGACATGAGAGATCAAGAGATAGACGAAGGTCAAGTGACAGATCACGAGATTCA
CATGAAAGAACGGAGTCTCAGCTACTCCTGTATTAGAAATGTGACTTCTCCAACACGACAGCACCAGTTGAA
CGAGAAAAAGATCACAGTTCCCTCGTCCAAGCAGTCCGCGTCTCAAAAGCATCCCCAAATGGTCCATTAGC
AGTGTGGAACAGCAGCAGAACAGTAGTCAGTCAGTCAAGTTCAGATGGTAGCTGTAAGACAGCTGGGAGATGGT
TTTGTATATGAAAATGCAAAAGAAGGAGCTGGAAATATAAGAACGTAGAACGAGTGACACTAATAGTGGATAAC
ACTAGATTGTTGAGACCCATCCATTTTACTGCACAGCCAAATACAATGTTGGCAGGATGTTGGATCTGC
CGAGAACATAACTTACACGACCCAAATGAGAAGGAGAGTATGAGGTGGCAGAGGGAAATTGGTCCACTGTGTT
CGAGCGATTCTGGATTACTATAAAACAGGAATAATCCGTTGCTGTGATGGCATATCTATTCCCTGAACTGAGAGAA
GCATGTGACTATCTTGATCTCTTGAAATATAGCACTATTAAATGTAGAGATCTCAGTGCCTAATGCATGAG
TTATCAAATGATGGTGCTCGTAGACAATTGAATTATCTGAAAGAAATGATCCTCCCTCATGGTAGCTAGT
GCCAGAGTGGGAACGGGAATGTCATATAGTGGTAGCTACAGATGATGATGTGGTAGTTGATTGGGATGAAGAATAT
CCACCACAGATGGGAGAAGAATATTACAAATTATTATAGCACAAATTATAGATTTCAGTATATTGAA
AACAGAGATGTGGCCAAGTCAGTTGAAGGAGAGGGGTCTTAAGAAGATTAGATTGGAATAGAAGGTTATCCT
ACCTACAAAGAAAAAGTAAAGAAAAGGCCCTGGAGGCCAGAAGTGATCTACAACATGTCCAAAGACCC
ATTGGAATGTCCCTGGAGAAGGAAGAAGGAAAGAGTCGGCATGACTTCAGTGTGTAAGAGATAATCTATC
ACCAATCTGCAGCAGCTGCAGCAGACATTCCCCAGGACCAGCTGGTAGTCATGCATCCA
ACTCCACAAGTGGAT
GAGCTGGATATTCTCCCTATCCATCCCCCTCTGCCAACAGTGACCTCGATCCTGATGCCACAGAA
TGATGCTGATCTCCCTGAAACCATACTGACTCTTCACAGTGACGTTGACTCTCCCTATTCTGCACTGCA
AGGCCACTCTCTCATTGTGAGATGCACATAACAATGTTAGGATATTGCACTGTTAGGCTTTAAAGACCAA
AGGTAGCTGAATGGTTTTAAATGAGTACAACCTAGCATTGGAAGTTCCAGTTGAAATGTATTGTT
ACCAGTAGGTTGAAATTGGTTCTTGATGGGGATGGCTTTACACAGCTAGGTCTTCAGAAGTG
GTGAAATTGGCAGCTGGGGTACTTTCAGTTGGACTGATATTGATCACACCTCAGATAAAATGAGTAATAT
ATAGTGACTTTATAAAATGGTTAAATGAAATGTTCAAGCCATTATAGTTGATGACAATATAATT
AAGTGCTCTGTCAGTAAAGTATTCTCCAGTACAATTGTTAGGTTGCTGCCCTGATGAGCAAAAGTATT
TTGGCTTATCTGAATGATCAGGATGAGATTAAATGCCATATCTTACCACTTCAGTTATCTCCAGGCCATT
ACCCCTTAGAGTGAGTCACATGCAGGGAGTGTGAATGTCAGAGGTGGTTATTATCCAGTCTGCCCTAAC
TCTGTTACAGATAATTACTAAATGCTTTTTCTTAAGAGTTATGGGATAGGAAATGAAGTGTGTT
CTTCATTTACTAAATGATTGAAACTTGAGTTTCAAAATAAAATTCCATTGTTAAAAAAAAAAAA
AAAA

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FIGURE 43

MILPLMVASAQSGERECHIVVLTDVVWDDEEYPPQMGEESQIIYSTKLYRFFKYIENRDVAKSVLKERGLKK
IRLGIEGYPTYKEVKKRPGGRPEVIINNYQRPFIRMSWEKEEGKSRHVDFQCVKSKSITNLAAAADIPQDQLV
VMHPTPQVDELDILPIHPPSGNSLDPDAQNPML

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FIGURE 44

ATTTGACTGGCAAAATGTGGCAGATTTCAGGGATGCAGGTGGATCCTTAAC TGAGGTCAAGGTGGAAGAGGAAG
AAAGGGATCCCGAGTCCTGAATTGAAATTGAGGAGGGAGAAGAAATTTGTCATCCGTATACCAGATTCCA
GGAGAGAAAATGAACCTCCGATTCCCCACATTGATGAGTTTACCTTAAC TCAACACCATCTAGATCTG
CATATGATGAGCCTCATTGCTCGTAAATATTGAGAACAGAAA ACTAGAGTGGAAAAACGACGACTGGATATCG
AGGCCGAAAGGTGCAAGGTAGAAAAGGAACGCCTACAAATCGAGAAAGAGAGGCTGGGCATTAGACATGGAAC
ATGAGCGGCTTCAGCTAGAGAACGGAGCGGCTGCAGATTGAAAGAGAAAAGTGGAGTTACAGATAGTCATTAG
AGAAAACGTCCTTGAAAATGAACITGGTCAAGGGAGAAAATCCATGCTCAACCACAGGACATAGAAACAGAGA
AGTAAACACTTGAGCGAGAACGCTTGCACACTGGAAAAGGATAGGCTGCAGTTTGAGTTGAATCTGAGAAC
TGCAGATTGAAAAGGAACGCTTACAGTAGAGAACAGACACTCGAATTCA GAAAAGAAGGACACTTGCAGTGA
TTTCCAGGCTTCCATTAGCAAATGTTGAAAACTCTAGATTTCATATCAGGTGATAATAATGATGGTTGC
TGGATTAGCTGTGGTTCTGTCTAATGTCAGTGTTCAGTAGGAAAAGTTATGTTGAGATAACTGTATGCC TAA
GTAGTATATAAAAGCTGTGCCCTAGCGTAAACAGTATAGCAGAAACTACTGTGCTGGACTCTTACCTTATAAT
ATTACATAGAGTCTGTATTGCTGTACCCAGAGTTACAATTATGTCATATAAAATTCTAGCCCAGAAGTT
CTCATCTGGGTAGATTGGCCTTCAGAACGCAATTGGTGATGCTGGAGACATGGGGTTGTCAAAACTG
GGTGGGAAAAGTTGCTACTGTGCAATGCATACCTCTAACACCCCCCACACTCAGTAAAGAATTTC CAA
CCAAAATATCATTAGCTGAGGTTGAGAACCCCTGCTCTAGCCTAACTGTATACCTCTATAGCTATGTTAT
AGTTTGAATATTAACCTCAGATAATTATGTTGGTAGTACTTAAATGCCAAAACTTAACTATGAAATG
TTACTGTGTAGTATATTGAATATAGGAAGTGTGAAGATTAGGTATT TATTCCATGTTCCATCTATAAT
AGCCTCTCAGATTCA GAAAACAATACAGAGAACATCAGAAATTCTAAATGGTCACCTTGAAAAGAATTCT
TTTCTCACTATTAAATGCTTAAAGAGCAAGCCTAAAGCTTATGTTCTTCAAGTCTTCAAGTCTTCA
AGTTGGGTACAAAATGTCATTCA GTAAATGTACTGAAATCTTATAAGTGAATAGTGAAGCTAGTAAAATGA
TACAGTATAAAATGGTACTGTGTAGTCCATGAGCTTGAAACCAATGACTGATTGTTGACTTTAAAATAAGTA
ATAGCAGCCATTGGAGTAGGGGGTAGGTGGGAAGATGTACTCCGTATCAAATAATAATGATGTTGAAATAAT
GATAGTAGGTATGTATTATGGATTGGAGAACGACTTATTACACTATCTAACCTAATATGTAAGAACAA TTCTGAG
AGTTGTATCTGCGTTATTCTGAATGTGAAGCTCAGAGAACGACTGACACAGAGTAAATGGCTGATCTTCTATATTG
TAGTATATTGTCCTCCCTTCCCTGAGGAACAAAGCACGTATCTTAGTCTTTGATATTCTGAGA
CCAAGGGCTTGTGCTGACCTGATGATTTCCTCAGCTCTGAAGGTGCTTTCCACAATCCAAGTGATTCTGA
TACACACTAAAGTTGAGAACACTGCACTAGATCACTTGTGTTTCTGATTTCAAGGGTGTACGTAGCTTAA
ATACAGCTCCTCTGTGAGCTTAAATTGCAATTGCTTCTGTAGAACATGGCTGGAAACTGTGTGT
TGACATTGAGGATGGGTATGCAAGGAAAAATATACTCTGTTACTACTGTACTTGTAAAGTAGTGTATT
TTCTATATCTGAAATAATGCTTCTACCATAGAAAT

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FIGURE 45

MLSSVIPDSRRENELPDFPHIDEFFTLNSTPSRSAYDEPHLLVNIKEKQKLELEKRRLDIEAERLQVEKERLQIEK
ERLRHLDMEHERLQLEKERLQIEREKRLQIVNSEKPSLENELGQGEKSMLQPQDIETEKLKLERERLQLEKDRL
QFLKFESEKLQIEKERLQVEKDRLRIQKEGHLQ

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FIGURE 46.

CTCGAAATTAACCCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGGCCGCTAGAACTAGTGGA
TCCCCCGGGCTGCAGGAATTGGCACGAGGGCAAATCCAATATAATTCTATACCTAGTAAAGATTGAAAT
AACTAAAACAAATGATAAGAGCTGTGAACGTGAAATTGTATTGCTTACAGAAATCATGAACGTGAAATTCTTC
TTTTAAAGTGAGCATAAAGACTTAAGTGTATTGTTACAGAGATATTTAGATAGTACATCATTGGCAG
GTAATCTCTAGAACCTTCATGTACTGTTCCATCAAGGGAGGGAAAGAAATAGAAAATATAATTATCTATA
TTTCCTTAAATATATCAATCTGTGACACTCTTCAGTTTTAATTACTCATGTAATATATGACTACATTT
GCTTGTGTGCTTTGAAAACCATCTTCAGTCCAATATCCTCTGAGAAGTAATAGTTAACTCTCTAGATC
TTCTTTAGAGTGTTTTATGAGTGTAAATGAGGAATGTGTATATATTATCTACAGCCACAGGAAATGTATAG
TTACGATTTTACATCGTGTATGTATTATTGTACAACCTTGCTATTCTACTTGGGAGTTTTTATTTGGTA
CATTACACATTACCTAATCTTGTGCACTGTCCAACAGTACTTGCCTATAATAGACACTTAAGGAAGTTTCC
TTCTTTTATTCTTTATAATTACCAACNATGCTGAAAGGAACATCATCCTACATGAGCCCTTTGTACATATA
AGGCTCT

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FIGURE 47

GC GCGGGACCTTCAACAAGGGCTTTATTAAATTCTCACGCTGCCGCTGGAAAGCGATGGAGGTGGCGGCTAATT
GCTCCCTACGGGTGAAGAGACCTCTGTGGATCCCCGCTTCGAGGGTTACAAGCTCTCTTGAGCCGCTGCCTT
GTTACCAGCTGGAGCTTGACGCAGCTGTGGCAGAGGTAAAACCTCGAGATGATCAATATACTGGAACACATGC
ATGCTTTGGAAATGTATAATTACCTGCACTGTGATTATGGTATCAAGACAGTGTACTATATTGATACCCCTG
GAAGAATTATGAATTAAACAGTAATGCTGGACACTGCCTTAGGAAAACACAGAGGGTTCTGACTTCCTACAG
ATTGACAGCATGTGACAACCGTCTTGTGCATCTACCTTCTACCTGGGTTACCTTGTCAAGATG
GAACTGGAAGATTGTATGTCATTGGAACAGGTGAACGTGGAAATAGCGCTCTGAAAAATGGGAGATTATGTTA
ATGAAGAACCTGGGGATCCTTTATTATAATTACAGTATCTCACTGCTAAATGCTGAAGAACATTCTATAGCTA
CCCTACTTCTCGAATAGAGAAAGAGGAATTGGATATGAAAGGAAGTGGTTCTATGTTCTCTGGAGTGGGTCA
CTATCAGTAAGAAAAATCAAGATAATAAAAATGAAATTATTAAGCGTGATATTCTCCGTGGAAAGTCAGTGC
CACATTATGCTGCTATTGACCTGATGAAATGGTCTAATGATTGTATCCTACAAGTCTTCACATTGTTCAAGG
CTGGTCAAGATCTGAAGAAAATATGGATGAAGACATATCAGAGAAAATCAAAGAACCTCTGATTACTGGCAAC
AGACTGAAGATGATTGACAGTAACCATACGGCTTCCAGAAGACAGTACTAAGGAGGACATTCAAATACAGTTT
TGCCTGATCACATCAACATTGACTGAAGGATCACCAGTTTGAAGGAAAATCTATTCATCTATTGATCATG
AAAGCAGTACATGGATAATTAAAGAGAGTAATAGCTGGAGATTCCTGATTAAGAAGAATGAAGGACTGACCT
GGCCAGAGCTAGTAATTGGAGATAAAACAAGGGAACTTATAAGAGATTCAAGCCCAGTGTGCTGCAATAGCTGAAC
GTTTGATGCATTGACCTCTGAAGAACTGAATCCAATCCAGATAAAAGAAAACACCTTGCAATGCTCAAGAGT
TAGAAGAATGTGATAATTCTTCTTGAAGAGAGCTCAGTTATGCAAGATTGATGGCAATACATTAAAATCTC
ATGTTGGTGAATCTTGAAGCAACCAGTACCTTTCTGTCAAGTGGATCCTAAAGAAAATGCCCTGCTTGT
TGCGCCATGATGTTGATGCCCTACTCTGGCAACCACACTCCAGCAAACAGATGATAATGAGGAGCACATCGCAA
CTTCAATGCTTCTAGGCTATGTCCAAGCATCAAAGAGAGACAAAAAATTGGCCTGTGCTCCAAATTACTCGT
ATGCAGCCCTTGTGAGTGCCTCGTCGAGTATTCTATCGTCAGCTGCCATGTCCACTGTACTTTACA
ACAGAAAGGAAGGCAGGCAAGTAGGACAGGGTGTCAAGCAGCAAGTAGCAAGCCTAGAAACCAATGATCCTATT
TAGGATTTCAGGCAACAAATGAGAGATTATTGTTCTTACTACCAAAAACCTCTTTAATAAAAGTAAATACAG
AGAATTAATTATTCTAACATATTGGCTCTTGACTGGAAAAGTATTCACTGGTACTGGAGGTCTGGACAGTT
ATACTGTAACCTCTTAAGTTAATGTGCTAAATAATCTTGTATGATTTTATTAAATAACATTGAAAT
ATATTCAAGAGATTATGATTCTGTAAAGCTGTGGAATGAAGCTGCAAGATTAGAGAACATTGGCTCTGAAAAAA
AAAAAGAGTGAAGAGATAGTACTAGCAAGTACTTATTAAACAGGTAGAATCTCATGTTTATATGAAAG
ATGTACAATTCACTGGTTAAAAAATTTTATTGTGAAAAAAAAAAAAAA

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FIGURE 48

ADLSTRALLILTLRPWKAMEVAANCSLRVKRPLLDPRFEGYKLSLEPLPCYQLELDAAVAEVKLRDDQYTLEHMH
AFGMNYLHCDSWYQDSVYYIDTLGRIMNLTVMLDTALGKPREVFRPTDLTACDNRLCASIHFSSTWVTLSDG
TGRLYVIGTGERGNSASEKWEIMFNEELGDPFIISIHSISLLNAEEHSIATLLLRIEKEELDMKGSGFYVSLEWVT
ISKKNQDNKKYEIIKRDILRGKSVPHYAAIEPDGNGLMIVSYKSFTVQAGQDLEENMDEDISEKIKEPLYYWQQ
TEDDLTVTIRLPEDSTKEDIQIQFLPDHINIVLKDHFLEGKLYSSIDHESSTWIKESENNSLEISLIKKNEGLTW
PELVIGDKQGELIRDQAQCAAIAERLMHLTSEELNPNDKEKPPCNAQELEECDIFFEESSSLCRFDGNTLKTH
VVNLGSNQYLFSVIVDPKEMPCFCLRHDVDALLWQPHSSKQDDMWEHIATFNALGYVQASKRDKKFFACAPNYSY
AALCECLRRVFIYRQPAPMSTVLYNRKEGRQVGQVAKQQVASLETNDPILGFOATNERLFVLTKNLFLIKVNTE
N

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FIGURE 49

GGCCTCAAGCGCGGGACCGACAAAGTCATGGACCGCAACCCCTGCCGCCGCCGCCGGTCGGACAAGG
AGGAGGAGGAGGTGGCCGGTGGAGACTGCATAGGGAGCACGGTCAACGAAACACTGGCTTCGGCTCC
TCAGCGGACTCATCCAGATTGTTAGCCCTGAAAACACCAAATCTAGCTCAGATGATGAGGAGCAGCTGACGGAGC
TTGATGAAGAAATGGAGAATGAAATTGAGAGTATGGGATATGTCATGGATGAGGACGTGGCTTATTCCTCC
AAGAATTAAATGCTCCTGATAATTCAATGGAGTACTGGCAAGTCAAGTGTCTCGATTAAGAGAAATCTGTG
TGGAAATTAGGTAAATATGGCTGTTCCAGGAGATACTGTGTCCATCAGCAGTGATAAAATCTGGCAGG
TGTATTGACTGTTGATGATTCAAGACCCACCTACTCTGCTGGAAACAAGCAGGTGTTGCTACTTGCCTT
CCCAGGCAGAAGTGGCAGTGGTTGAAAGGATCCAGGAACATCCAGCTATTATGATAGCATTGCTTCA
TTATGTCAAGTCAACAAATGTTGACTTGCTGGTGAAGGTGGGGAGGTTGTGGACAAGCTCTTGATTGGATG
AGAAACTAATGTTAGAATGGGTCAAGAAATGGGGCTGCTCAGGCTCTGGACCAACCCAGGAAGAGTCTGAAGAGC
AGCCAGTGTTCGGCTTGTCAGCCCTGATACTTGAAGCTGCCAACAGTACGTTGAAATCCAGAATGGCTTG
ATGTTACATGCACATTCAACTGTTACTACAGTGGATGATGGAATTCAAGCAATTGTACATTGCTCTGACA
CTGGAAAAGACATTGAAATTACTTTGACCTGGCTGCCATGAATTCTGCCAGTCTGATGATCCACCCATCA
TTCTCAAGAACAGAAAACGGTGCTAGCCTCTGTTTTCAAGTGTGCTGCCATCTATGCCACAGACTGAGC
AAGAGTATCTAAAGATAGAAAAAGTAGATCTCCTCTAATTGACAGCCTCTGGGCTTACAAAATATGGAAC
AGTGTCAAGAAAAACCAGAGAACTCGCAGAGTCTAACACAGAGGAAACTAAAGGACTGATTTAACCCAGATG
ATTTCCACTTGAAAATCTTAAAGGATAATTGTGAATTCTTCTAATATTTCAGGCATTAACAAAGGAGA
CGGTGGCTCAGGGAGTAAAGGAAGGCCAGTTGAGCAACAGAACAGTGTCTCTGCATTCAAAACCTCTCCT
TCTATAGCCCTGTTGGAAGATTTATTAAACCTACGTGAAGTTGATAAGGCCTGCTGATGACTGGAAA
AAAACCTCCAAAGTTGAAGGTTCAGACTAAAAACCTGAATTGGAATTACTCTGTACAAGAAATAAAACTTATT
TTTCTCACTGACAAAAAAAAAAAAAA

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FIGURE 50

MDRNPSPPPPGRDKEEEEVAGGDCIGSTVYSKHWLFGVLGLIQIVSPENTKSSSDDEEQLTELDEEMENEIC
RVWDMSMDEDVALFLQEFNAPDIFMGVLAKSKCPRLREICVGILGNMACFQEICVSISSDKNLGVLLHCLYDSD
PPTILLETSRLLLTCLSQAEVASVWVERIQEHPAIYDSICFIMSSSTNVDLLVKVGEVVVDKLFDLDEKLMLEWVRN
GAAQPLDQPQESEEQPVFRLLVPCILEAAKQVRSENPEWLDVYMHILQLTTVDDGIQAIHVCPDTGKDIWNLLF
DLVCHEFCQSDDPPIILQEOKTVLASVFSVLSAIYASQTEQEYLKIEKVDLPLIDSIRVLQNMEQCQKKPENSA
ESNTEETKRTDLTQDDFHILKILKDILCEFLSNIFQALTKEVAQGVKEGQLSKQKCSSAFQNLLPFYSPVVEDFI
KILREVVDKALADDLEKNFFPSLKQVT

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FIGURE 51

TTTTTTTTAGGCTGTAAAAATGGTAGCTGCTGTTATTTCAGTTGCCTGGAATTGCCTTTCATTTGATGC
ATTCCAGCGGTTCTTGTGCTGCCACATGGGACTCAGTAATGTTATTACATCAATATCTTGAAATGTTCTTCAT
CTGTGTAATAAAGTAGTTGAAAATAATTAAATTATCACATGAGCATTAGTACTTTATAAAAATTGATCTAGAA
GACTCTTAGAGAATGCTACCAGGTATTGTTGTCAATAAGAAAACAAAATGAGGCCCTATGATTCTAGGTGAAT
TTTAAAAAAATTTCACCAAGGAACAATTCTAAACTTCAGTTACAGGGAAGAGAAGAAAATTGTACCTTCT
AACAGTTATTGTTTG

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FIGURE 52

AGATGGCGGTGCAGGTGGTGCAGGCGGTGCAGGGGTTCATCTGAGCTGACGTTTCCTCGTTGTCTCAACC
ACGCTCTGAGCACAGAGAAGGAGGAAGTAATGGGGCTGTGCATAGGGGAGTTGAACGATGATACAGGAGTGACT
CCAAATTGATATACTGAACTGAAATGCGCACAGTTGCTGAAAGGTTGATGCCGTAGAATTGTCACATT
ATTCTGTATCATCTTACGACGTTGATAAGAGGAAGGACCGAGTAGAAATTCTCCAGAGCAGCTGTCTGCAG
CTTCACAGAGGCAGAGAGGTTGGCTGAACTGACAGGGCCGCCATGAGAGTTGCTGGTATCATTCCCAC
CTCATATAACTGTTGGCCTCACATGTTGATGTTGACACAAGCCATGTACAGATGATGGATCAAGGCTTG
TAGGACTTATTTCCTGTTCATAGAAGATAAGAACACAAGACTGCCGGTACTCTACACTGCTTCAA
CCATACAGGCCAAAAGAGTTCAGACTCCCTCATGGTCCACGAGACTCTGGAGCTCCAGGCCACATCTCA
TTGAGGGCCAGAAGGAAGAGGAAGGTTGAGAGAACATGAAATCCAAATCCATATTGTACCTCATGTCACATCG
GGAAAGTGTGCCTGAATCAGCAGTAGAGCTGCCAAGATCCTGTGCCAGGAGGAGCAGGATGCGTATAGGAGGA
TCCACAGCCTTACACATCTGGACTCAGTAACCAAGATCCATAATGGCTCAGTGTACCAAGAACATGTGCAGTC
AGATGTCGGCAGTCAGCGGGCTCTCCTACAGTGGTTGGAGGACAGACTGGAGCAAACACAGCATTGCA
AATTACAACAAGAAAAGGAAGAGGCTTATGCAAGAACATTCTCTAGAATAAATCAGGAGACAAAATGGGAAA
GATGAAAATATCCAGTGTAAAGTTACTTAAGCTAAATCAATTCAAAGAAGAAAAACTGGAGGACTCATTTAC
CTGACTTCAAGACTTACTATAAGCTATAGTAATCAAGATAGTGGTATGGCAGAGGAACAGACACATACGTCA
ATGGAACAGATGAGAGAACCCAGAAATAACCCATATAAATATGCTCAGCTGATTTGAAAAGTGAAGAACAA
TTCAATGGAGGAAGAATAGCCTTCTGACAAATTATGCTAGAGCAATTAGACACCCATGGCGAGGAGAAAAAGA
ACCTCTACTAAACCTCACATCTTATATAAAATTAACTCAAATGTATAACGGACTTAAATGTGATACATAAAA
CTAGATAACTTGAAGGAAAGCCACAGGGAAAAATCTCAGGATCTGGGCTAGGTGACAAGTCTGGACTTTG
CCCCGAAAGCACATCCATAAAAGACAAAATCTGATATATTGGACTCTTCAAAATTAAAGTGTGATTTAAG
AAGAGGAAAAGATAAGCTACAGATTGAGATGAATTGCAACCATATATCTGATCAATTGGAATATATAAGT
TACTAAAACCTCAACTGAAGTCAGGCATGGTAGCTCATGCTTGTAAATCTCACCATTGGGAGGCCAGATGG
GGAGTGCTTGAGGTTAGCGTCCAGACCAGCCTGGCAACATAGTGAGACTCTTGCTCTACAAAAGTTTT
TAAAAAAATTAACTGGCACCATGACACACACCAGTAGTCCAGCTACTAGGGAGGAGGACTTGAGGCC
AGGAGTTGAGGCTGCGGTGAGCTGTGATCACACCACACTCCAACCTGTAAACAGAGTGAGGCCATCTC
AAAAAAAAAAGGCCACAAAATCAACAATAAAACAAACAGTCAATTAGAAAATGGCAAAAGACATGAAT
AGATTTCACTGAAGAGGATCTATAGATGGCAAGTAAGCATATGAAAAGCTTAAACTCCATAAGTCATCAGG
GAATGCAAATTGAAACCCACAGCGAGGCTATGACTTACTTATCTCAATGGCTAAAGAAAAAATAGTGAAGAAC
AACTGATGAGGATACAAACTGGATTTTATACATTGCTGACAGGAATGTAAGTAAACATAAGACCCAGCAGTGT
AAGAGTTTATGAAATTCTTATCAAGTAAACATAATTGAAATCAAGTAAACATAAGACCCAGCAGTGT
CCTGGACATTCACTCCAGAGAAATGAAAACCTATATTGACTTGTACTCAAATATTGATAGGAGCTTATTGTA
ATAGCCCCAAACTGGAAACAACCCAGATGCTTACAAACAGGTACATGGTTAAACAAACCATCCATAACTTGAAT
ACTGCTCTGGAAATGAAAAGGAACTAATGTTGATACAAGAACATTGGTTGACCTCAGGGGTATTATGGTGAACAA
AAAAAAACAGTCTCAAATGGTCACATACTGTATGATCGCATTATATAACATTCTGAGGTGACAAAATTATT
GAAATGAAGAACAGATTAATGGTGCAGGGGATAGGGACTGGAGGGGGTGTGGGGTATGTATGACTATAAGGGA
TGACGCAAGGAGTTCTTGTGCTGATGGAACAGTTCTATATGATTATGATTACGATGTTGATTATAACATT
TGATTATGAGGTTAACGACATGAATCTTACCTGTGCTGAAGTTGATGGACCTACATACACACAAATGAATGCA
TGTAATCTGGTATACTGAATAAGTCTGTAGTCTAGATAGCAGTAAAAAAAAAAAAAA

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FIGURE 53

MAVQVVQAVQAVHLESDAFLVCLNHALSTEKEEVMGGLCIGELNDDTRSDSKFAYTGTEMRTVAEKVDAVRIVHIH
SVIILRRSDKRKDRVEISPEQLSAASTEAEERLAELTGRPMRVVGWYHSHPHITVWPSPHVDRVQTQAMYQMMDQGFV
GLIFSCFIEDKNTKTGRVLYTCFQSIAQKSSES LHGPRDFWSSSQHISIEGQKEEERYERIEIPHIHVPHVTIG
KVCLES AVELPKILCQEEQDAYRRIHS LTHLD SVTKIHNGSVFTKNLCSQMSAVSGPLLQWLED RLEQNQQHLQE
LQQEKEELMQELSSLE

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FIGURE 54

CTGCCAGCCGCGCTGCTGCTCCTCTGCTGTGGACCGCTGACCGCGCGCTGCTCCGCTCCCCGCTCCA
AGGCCGATCTGGCACCCGCCACCAGCATGGACGCTCGCCGCGTGCAGAAAGATCTCAGAGTAAGAAGAA
CTTAAAGAAATTCAAGATATGTGAAGTGATTTCCATGGAGACCTCGTCATCCTCTGATGACAGTTGTGACAGCTT
TGCTTCTGATAATTTCGAAACACGAAACCTAAATTCAAGGTCAGATATCAGTGAAGAACCTGGCAAGTGTGTTTA
TGAGGACTCTGATAATGAATCTTCTGCGGTTTCAGAAAGTGAGGTGCAAGATGTATTAGACCATTGTGGATT
TTTACAGAAACCAAGGCCAGATGTCACTAACGAACTGGCCGTATTTCATGCCACTCTGACGATGAATCATT
TTGCCGTTCTCAGAGAGTGAAGATAACAGATGGAATGAGGCTGCAGTCAGTCGGAAAGGCTGTAGGACCCGCAG
CCAGTGCAGGCACTCTGGACCTCTCAGGGTGGCGATGAAGTTCCAGCGGGAGTACCAAGGGAGCAACCAAACAA
AAAAGCAGAGTCCCAGCCAGCCCTCAGAGAAATTCTGTGACTGATTCCAACCTCGATTAGAAGATGAAAGTGGAA
GAATTTTTGAGAAAAGGGTTAAATATAAGAAAACAAAGCAATGTTGCAAAACTCATGTCTGAATTAGA
AAGCTCCCTGGCTCGTCCGTGAAACATCCCCCTCCCAGGCTCCGACTCACAAATCAAGGAGACCGCGAAGGCG
TACATTCCCGGGTGTGCTCCAGGAGAAACCTGAACGGAGAGCTGCTCCTCTTACCAAGGTCAAGGTCCCAGGAT
CCTCGGGTCCCTGACGCTCTACCCATGGAGGAGGAGGAGGATAAGTACATGTTGTGAGAAAGAGGAA
GACCGTGGATGGCTACATGAATGAAGATGACCTGCCAGAACGCCGTGCTCCAGATCATCCGTGACCCCTCCGCA
TATAATTGCCAGTGGAGAAAATTACAGAGGAGGAGTTGGAGAACGTCAGCAATTCTCGAGAGAAGATATA
TAACCGTTCACTGGGCTCTACTTGTCAATGCCGTAGAAGACTATTGATACCAAAACAAACTGCAGAAACCC
AGACTGCTGGGCGTTGAGGCCAGTCTGTGGCCCTCGCTCGAAACCGTTATGGTGAAGAGGTCAAGGGATGC
TCTGCTGGATCCGAACTGGCATTGCCGCCCTGTGAGGAATCTGCAACTGCAGTTCTGCCGGCAGCGAGATGG
ACGGTGTGCGACTGGGCTCTGTGTTAGCCAATATCATGGCTTGGAAATGTGATGCCACTTGAAAAG
CCTGAAACAGGAATTGAAATGCAAGCATAATATCTGAAATTGCTGCCCTACTCTCAAATCTTC
TTGAAAAGTTCCAATTTCGAAACCTGAGTTAAAATCTTGATGATCAGCCTGTTCATAGAAACCT
CAATCAAGTTAATCTAGCAGACATGTGTTCTGGAGCATCACAGAAGGTATATTGCTAGTTACACTTGCCTC
CTGCAGTTCTCTGCTCCCAACCCCCATCTCATAGCATCCCCCTCTATTCCAATGCTCCTCCAAACCGCT
TAGTTCTGAATTCTTTAAATTACAGTTATGAAAGCATATTATTTACTTGTTGAAATAGCCTCAT
AAAACCTAACGACTGGAAACACAATAATGATTAACTAAGTATCTGAAATTTCAGAGAAGAGCCTCTA
ACTGTTACACAAAACGAGTATGATTAGCATTCAACTAGTTGAAATTAAATAGAATCAAGGCACAAAG
TCTTAAAACCATGTGGAAAATTAGGTAAATTATTGCAAGATTGATGCTCTCAATCCATGATTGCGCTTATGTT
ACAAGTTGTCACAGTTGAGACTTAATTCTCTAATTCTCTGCCGAAGGGTAAGTGGTGCCTCAGCTT
ACACAATCATATAATTCAAAGGTTGGCAATGTAATACTTAATTAAAATGATGGAAGAGCTATCTGGAGAT
TATGAGTAAGCTGATTGAAATTTCAGTATAAAACTTGTATGTTGCAAGTTATTCAGTTCAC
ATGTAAGGTATTGCAAAATAATTCTGGACAATTGTTGATGAAACTTGTATATTAAAAACTAGTCTGTTCT
TGCAGTTCTGTAATTATAAACCAAGGCACAAGGTTCAAGTTAGATTAAAGCACTTTATAACAATGATAA
GTGCCCTTTGGAGATGTAACTTTAGCAGTTGTTAACCTGACATCTGCCAGCTAGTTCTGGCAGGTT
CCTGTGTCAGTATTCCCCCTCTTGCATTAATCAAGGTATTGGTAGAGGTGGAATCTAAGTGTGTTATGT
CCAATTACTGCAATGTAACCATGCTGTGCTATTCAATGTTGATGCATAATTGGACCTTGAATCGATAAG
TGTAAATACAGCTTGTATGTAATGCTTTATACAAAGTTATTTAATAATAAAATGTTCT

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FIGURE 55

MDARRVPQKDLRVKKNLKKFRYVKLISMETSSSSDSCDSFASDNFANTPKFRSDISEELASVFYEDSDNESFC
GFSESEVQDVLDHCGFLQKPRPDVTNELAGIFHADSDDESFCGFSESEIQDGMRQLQSVREGCRTSQCRHSGPLR
VAMKFPARSTRGATNKKAESRQPSENSVTDNSDSDEDEGMNFLEKRALNIKQNKLMLAKLMSELESFPGSFRGR
HPLPGSDSQSRRP RRRTFPGVASRRNPERRARPLTRSRSRILGSLDALPMEEEEEDKYMVLVRKRKTVDGYMNED
DLPRSRRSRSSVTLPHIIRPVEEITEELENVCNSREKIYNRSLGSTCHQCQKTIDTKTNCRNPDCWGVRQF
CGPCLRNRYGEEVRDALLDPNWHCPPCRGICNCSCFQRDGRCATGVLVLYLAKYHGFGNVHAYLKSLKQEFEAQ

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FIGURE 56

GGCACGAGGTTGTGTCTTGTAAACCCACTTGTGGAGCGAGAGGAATTGGGAGGGCCAGGGTTAGTCCTGG
CCTCTGTCTTAGCTGTCAATTGGCGTTTTTTTTTTTTCTCAGGGGATTCAGTCTCCACATAGTTTGG
AGCCGGACTTTGAAGAATGATTGTAATCCGAATGGGTGACAGCGTCATCACGCCATTATTGACAGACCA
TGGATTCTTACAGTGCACCAGAGTCACACTCTAGTGCATCCTCAAGACCTGAAGATTACTTTATAGGTGCCACTC
CTCTGCAGAAACGATTAGAATCGGTCAAGGAAGCAGAGTTCAATTATCCTGACTCCACCTGAAGGAAAATTCCCC
AGTGGTCGCAGTTGCAGGAAGATGTTGACCTCAAAAGGTTGCATTCTCTGCATAAAACAGTGGACTTATATA
GTTAACCCCTTATATAAATTCTCTATAGTAATCTCAAAGACTATTCTAGACTTCTCAATGCTTTATTGTTG
CTGAAAAGCAAAAGGACTTGCTGTGGAAGTGGGAGAAGACTCAACATCAAAGTGAATTCTACTCTCCTAG
GAATGAAAGGAACACAAAGGGACCCGGAAGCATTCTGTCCAGATTGTTGCAAAATCTCAATTGCCATCTGAGA
ATAGAGAAGGTAAGTGCTGTGGACTGGCTGGTTCTGCTGTGTATTGGAGACAGTCTCTGGAGACTGTTTCAG
AAGATTTCACCTGTCTGCCCTTATTCTTGCAAATGGAGCAGACTAACACAGCAATAATTGGAACTTGGTTTCA
AGAAAACCTTGACTGTTATTCACTGCTTCTGAAATCAATGCATTAACTTTCTGGATGGCTGCCATGTTGGA
CTGCATGCAAAATGGACCATTATGTGCTACTACTGAATTCTTGGTCTGTACCCCTGAGCCCTCAAAGTCTGG
ACATTCTTCGCAATACATCCAGAGGATGCAAAGCTCTATGGACAGTGTCCACAAAACACCTGGGAGGTTA
CCCAGGAAGAAGTGCACCTATTCATGGATTGCTTATTACATTTCCATAGACATTCAAATTCAATTATCAG
CCACAAGATTAGTCGTGTTCAACATCTGTAGCTCAGCACATACTGATGGAAAAATAAGATTCTGTGTCTA
AATACCTTATTGGAGTGTAGCATATTGACAGAACTGGCAATTTCAAATTGAGTGAAGCCTTATGTGGACTA
TAAGTTATAGATTATATACTCTTATTGATAACTTGCTTAATTGCTATGCTGAAAGAGACTGCAGGAGAAATAGGC
ATCTATCTCTGCATCTGTTTCCCCACCATGCCTTGGAGTTGCAAGATGGAAGCCAAGAAGGATCTAGAAGAA
CAAAGAATATGGTAGTAGATGAGCCACAGCCAGGTGCCATGTAATCATGATAACCTGACATGCCATTCTCA
AAATGCTGAGTTGTTAATTCTGTCACTTTAAATATATATAGGCTGGCTTGGCTCACACCTGTAA
TTCCAGCACTTGGGAGGCTGAGGTGGGATCATTGAGGCCAGGAATTCAAGACCAGCCTGCCAACATGGT
GAAACCCCTCTACTGAAAATACAATAATTAGCTGGCGTGGCACATGCCTGTGATCCCAGCTACTGGGG
AGGCTGAGGCAGGAGAATGTTAACCCAGAAGACAGGCTGCAGTGAAGCAAGACTGCACCACTGCACTCCAGC
CTGGGCAACAAAGTGAAGACTCTGCCCTCAAAAATAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 57

MDSYSAPESTPSASSRPEDYFIGATPLQKRLESVRKQSSFILTPPRRKIPQCSQLQEDVDPQKVAFLLHKQWTLY.
SLTPLYKFSYSNLKEYSRLLNAAFKQKGLAVEVGEDFNIVFSTLLGMKGTQRDPEAFLVQIVSKSQLPSE
NREGKVLWTGFCCVFGDSLLETVSEDFTCLPLFLANGAESNTAIIGTWFQKTFDCYFSPLAINAFNLSWMAAMW
TACKMDHYVATTEFLWSVPCSPQSLDISFAIHPEDAKALWDHSVHKTPGEVTQEEVDLFMDCLYSHFRRHFKIHL
ATRLVRVSTSVASAHTDGKIKILCHKYLIGVLAYLTELAIHQIE

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FIGURE 58

CGGAGCTGTAGCGGCCACTGTAACGTGAGGGCAGCGCCCGTGTAAACGGCGGGGGCGTGTGGCGGGAAAGGAC
 AATCGGGCCGGGACTCGCGGTGTCGGGTGACCGCGGCTTCCCAGGAGCAGACCTCTGTGGGCAGTGTGAGGC
 AACGGAGCGGCGGGCAGGAGCTGTTCTGGGCAGCCCTCATCCCCGTGGAGCTACCCCCAAGCCCTCTCCTC
 TCCCCAATTCTTGTCACCTTCAAGGAGGCCATGGAAACCCAACACCTTGCCTGTACCCGCCTCCCCGACC
 TGCAACCCAGCCCCACGGACAATCCAGATCGAGTCTCCACAGCATAGCTCGCTGCTGAATCTCTGAACCGC
 CACAGGCTAGAGGGAAAGTTCTGTGATGTGTCCTCTGGTGCAGGGCCGGAACTTAGGGCTATAAGCAGTG
 TTAGCTGCTGCCTCTCCTTACTTCCATGACAAGCTGCTCTGGGGATGCCCTCGTCACTTACCCAGTGTC
 ATTGAAGCCGATGCCCTCGAGGGCTGCTCAGCTCATTTATTCAAGGGCTCTCCGCCTGCCACTGGATGCTCTT
 CCTGCTCATCTCCTGTGGCCAGTGGCCTCAAATGTGGCAGGTAGTAGATCAGTGCTCAGAAATTCTTAGAGAA
 TTAGAAACTTCAGGTGGTGGATTTCAGCCCGTGGAGGAACTCTACCATGCCCTTCCACTACATCCTCT
 ACAGGAGGCTGGTGCATTGCTCTCGCCCTTCCAGACCCCAGTACAGTCCCTGCTTCTACTGAAAGCCCTGCT
 TCCACTGAGAGCCCTGTGGAGGGAGGGAACTGGGAGAAGTGCTGCAAATTCAAGGTGGAAGAAGAAGAG
 GAGGAGGAGGAAGATGATGATGAGGACCAGGGTCAGCCACACTCTCAGACTCTCAGCCCCAGAGAGTA
 TCAGGGGTTTCCCGTCTCATGGACCCCACCCACTGCCATGACTGCTACTCCCCGAAAGCTCCAGAGGGT
 GAGAGTGCACCACTTGAGCTTCTGCCCTGCAGTGCCTGCAGCTGCCCTCCAAATCTACATTAAAGCAGGAACCCCTC
 GAGCCTAAAGGAGGAGATCAGGAAGCGGAACCTAGCCTGGAGGAGCAAAGGAGGAACCAAGTGTGGA
 GGGGACACTGAAGGGAAATGGGAGCTAGGGTCTTGTGCTCAGGGCCAGGGCAACATCTGGGGAGGGGGT
 CCATCTGGAAACCAAGTGGATCTCATGGGAATGAAATCCTGTCAAGGGGTGGAGGACCTGGGGAGCCAG
 GCCGTGCATGGGCTGTGAAGCTAGGGGGACACCCCTGCAGATGGAAAACGCTTGGTGCCTGTGGGAAG
 CGGTTGCAGTGAAGCCAAGCGTACCGGCACATCATGCTGACCTCAGCCTCGGCCTTGGCTGTGGCATC
 TGCAACAAGCGCTCAAGCTGAAGCACCATCTGACAGAGCACATGAAGACCCATGCTGGAGCCCTGCATGCC
 CCCACTGTGGCCGTGGTCCGAGTCCATGCCGTGTTCTCCGCCACCGGGACCTATGCAAGGGCCAGGGCTGG
 GCCACTGCCACTGGACTTACAAGTGACTGCTGAGGTATACTAGCTCTAGAACAGATAACCAGTGT
 GATGGATACTTCCCTCACTGCCATGGCACACCAGTCATGGATCTGTAATCATGCCAAGAGAACATGATT
 ATGGACCTTGTCTTAGATATGGCCTCTCAGCCTGGCAGATGTGAAACTCAAATTCTCGTCCACTCCAG
 GTTTGGCTAGCCAACCTGCAGGAAAGTGGTTATAGGCCATTACTAAGTGTACACTGCCCATGGTGG
 ACATTTTGTTGGTGTGATGTCATTAAGGAAACAGATTTCAATTATTTAGTAGAGAGAAGAGTTAGAGAAAA
 GACAGTGGTAAATGTTTATTCCGTCTCATGAGGAATTGAAGGGAGTGGCTCCACCTAGAGATAACATTGATT
 TACAGCTTAAGTAATTCAAGGGCTAAGCTCAAGCTTTTCTCTCATGCTGAATGATTAAAGCAGAACGCT
 TTTGTGACTTTAAATTGTATCTTCAAGGAGCCCTCAGATTGTACCTTGCCTTCTACCAATAGACACCTT
 CCCGACACTTTTAATGTTGAGCTGAGCATTAAACAAGTTGAGCATTCCATGTTCAATTAGAACCTTCT
 TTAATAGAGGGCTCCCTCAACAGCCTGTGCCTCTGGTCTACCTTGACCACACTGATAACTAATATTGGT
 CACAATGACTGGAATGTGACTAGTGTACACTCAGGAGATGGCACTGTCTAAAGTGTGTCAGGGTGGCACCAC
 TCTCTGAACAACTTACCTGGTCAGAGGGACTCAGGTTGGACAGCACAAGCTGAAGGGTGGAGAGTAACCTG
 ATAGTAGGACCATACCTCTCCATTCCACCATATGATAGACAGCCCTGTGAGATATGGAGGG
 GACAGATACTGGAATCGGGGGTGGACTTGCAGTTACTAAAATTAAACTGTGCCCTGAAACCTAAA
 AAAAAAAAAAAAAAAA

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FIGURE 59

METPTPLPPVPASPTCNPAPRTIQIEFPQHSSSLLESLNRRLEGKFCDVSLLVQGRELRAHKAVLAAASPYFHD
KLLLGDAAPRLTLPSVIEADAFEGLLQLIYSGRLRLPIDALPAHLLVASGLQMWFQVDQCSEILRELETSGGGISA
RGGNSYHALLSTSSTGGWCIRSSPFQTPVQSSASTESPASTESPVGEGSELGEVLQIQVEEEEEEEEDDDDED
QGSATLSQTPQPQRVSGVFPSPHGPPLPMTATPRKLPEGESAPLELPAPPALPPKIFYIKQEPFEPKEEISGSG
TQPGGAKEETKVFSGGDTEGNELGFLPSGPGBTGGGGPSWKPVLDHGNEILSGGGGGGGAGQAVHGPVKLGG
TPPADGKRGCLCGKRFAVPKPDRHIMLTFSLRPGCGICNKRFKLKHLTEHMKTAGALHACPHCGRRFRVH
ACFLRHRDLCKGQGWATAHWTYK

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FIGURE 60

TCGGCATGGTGTACCTGGTCTCAGCCTCGGCATGGTGTACCTGGTCTCAGCCTCGGCATGGTGTACCTGGTCC
TCAGCCTCGGCATGGTGTATCTGGTCTCAGCCTCGGCATGGTGTATCTGGTCTCAGCCTCGGCATGGTGTATC
TGGTCTCAGCCTCGGCATGGTGTATCTGATCCTCAGCATAGTGTATGTAGTACTCAACCTCAGCATGGTGTATC
TGGTCTCAGCCTCAGTATAAGTGTATCTGGTCTCAGCCTCAGCATAGTGTATCTGGTCTCAGCCTCAGCATAG
TGTATCTGGTCTCAGCCTCAGCATAGTGTATCTGGTCTCAGCCTCAGCATAGTGTATCTGGTCTCAGCCTCA
GCATAGTGTATCTGGTCTCAGCCTCGGCATGGTGTATCTGATCCTCAACCTCAGCATAGTGTATCTGATGACAC
TTTGACCTATCTTCCCCAAATGATGTAATGCTCCTGTCAGTTCTGCTGCAGTAAAATAGCTCTCCTTTATTC
ACAGAAAGGAATAAAGTTACATGGACTCCTTAGATTATTAAAGCATGATGGACCATATTGCTGATTCTG
TTTAATGTTATTCACTTCCAATTAGTCTTGTCCCCGGAAATCATTCCCTGGCTCTAAGTTGACAGTT
TCTGTTATTGTTGCTGCTGAAAGTTGGTACAACCAGGCTAACAGAGGCAGTTAGTGCAGATGATGATGTCAA
AAATCTCTTATAGGCTGAGCATGGTGGCTCACACCT

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FIGURE 61**

MVYLVLSLGMVYLVLSQLGMVYLVLSQLGMVYLVLSQLGMVYLVLSQLGMVYLILSIVYVVINLSMVYLV
LSLSIVYLVLSLSIVYLVLSLSIVYLVLSLSIVYLVLSLSIVYLVLSLSIVYLVLSLGMVYLILNLNSIVYLMTL

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FIGURE 62

GTCAGGGCCAAGGTCCCTGCCCTGAGTCCTGAGAGCAGCGCAGAGGCCTGGAGGCTGCAGTGTCTCCGATGGAT
 TACCCCTGCGTCCTATAGCCTTGCAGGCACCCAGCACATGGAAGCCCTGCTGCAGTCCCTCGTATTGTCTTACTC
 GGCTTCAGGTCTCTTGTAGTGACCAGCTCGGCTGTGAGGTTAAATCTGCTCACAGCCCAGCAGTATGAGATA
 TTCTCCAGAAGCCTCCGCAAGAACAGAGAGTTGTCTGAGGCTTACCTGGCTCAGGGAAGACCATCATGGCC
 ATGAAGATCATGGAGAAGATCAGGAATGTGTTCACTGTGAGGACACAGAATTCTCTACGTTGTAAAACCAG
 CCTCTGAGGAACTTTATCAGTGATAGAAATATCTGCGAGCAGAGACCCGAAAACCTTCTTAAGAGAAAACCTT
 GAACACATTCAACACATCGTATTGACGAAGCTCAGAAATTCCGTACTGAAGATGGGACTGGTATGGGAAGGCA
 AAAAGCATCACTCGGAGAGCAAAGGGTGGCCAGGAATTCTCTGGATCTTCTGGATTACTTCAGACCAGCCAC
 TTGGATTGCAGTGGCCTCCCTCTCAGACCAATATCCAAGAGAGCTCACCAGAATAGTCGAATGCA
 GATCCAATAGCCAAGTACTTACAAAAGAAATGCAAGTAATTAGAAGTAATCCTTCATTTAACATCCCCACTGG
 TGCCTCGAGGTATTCCTGAAGCCGAATGGTCCCAGGGTGTTCAGGAACCTTACGAATTAAAGAAATACTGACT
 GTGGAGCAAATAATGACCTGTGAGCAGACACGTGCAAGGCCTTGTAGGGCTATTCTCAAAGGATGTT
 GCTGTGCTTGTCAAGCACCAGAAAAGAAGTGGAGCACTATAAGTATGAGCTTGTGAAAGCAATGAGGAAGAAAAGG
 GTGGTGCAGCTCAGTGATGATGTGATATGTTGGTGTGACATTGTGTTGGACAGTGTICGGCAGTCTCAGGC
 CTGGAAAGGAGCATAGTGTGTTGGATCCATCCAAGGACAGCTGACCCAGCTATCTTACCCAAATGTTCTGATCTG
 CTGGCTTCCAGGGAAAACAACACCTGTATATTTCCTGGTGGGATGGCCATTAGGAAGAACTCCAAATCAAATG
 CTATGTAATGTCTATGGGTGACAGTCTGCTGATGGTAGAAACCTTCTTTAGTTACAAGTCAGAGATTG
 ACGGAGCTGACACAAAGAGTTGGAGCTCCCCATTCTGGCTCTCCTTCAGGGTTCTTCCCCAACCTTT
 CAGCAGCGGTGGCTGCCCTGACTCTCCAGGCCAGAAAGATGGGGTTCTAAAGGAACCTT
 TAGCTGCTTGTGACAATGCCGATCTGTGCTTGCATTGGTAAAGCCATAAAATAAGAAACTCAGCCTGTG
 GCCTTCTTCTTCAAGGCTGGCTTCTTTTAAGTGACTTCATGCAGTTGTTGCTTTAAAAATTGTCC
 AGAATCGTTCTGAGACAGCATGGCTGTAGGAGCTACTGGCGTAGCAGAAGCAATTGTTCTGAATTCT
 TGACATTATCTTGCTGTATTCAATTAGGCTTGGAGAGTCCGAAGATAATTCACTGACTGTCAAGATTAATAA
 TTTGTGAGGACAAAGAATACCGTTATGATTATTAACTCTTAAATTGTGGTCTCCAGAGCTGTTCTCAGAA
 TGGCCCAGACCAAGCCTAATTGIGATAGTGAATTAAATGGTCACTTTAAGGAGAAATTAGGCCAAGATGAA
 ATGAACATAAACCTGTTGCCCTGGCTTCAGTGGAGATGATATTAGAGACCAAAATCTGGTTCTGAAGGTGTG
 TATCAGCCCTAAGGTGAACCAAGACTTGGGAAAGATTGTCTTAAAAATCAATGAGTTATGTTAACCTCTCAG
 CTTAGTTCTATGCATTGCTTATAACACACCTAGTTAAGTTTATGTTATCTGAACTGTGATTTTTCTAT
 TTACTTCTATGGTTGGTGGCCATTGTTATGGACTGAATGTTGTTGCTCCACCCCTCACCCCCAAATTCCCGTG
 TTGAAGCCCCAACCTGCACTGGAGCTGGCTGCTAAGGAAGTAATTAGGTTACATGAAGTCATGGGG
 TCTGATCTGCTAAGGTTGGTGTCTTATAGGGAGAGACCCAGAGAGCTGTTCCCTCCCTGTGCAAG
 ACAAGAGGGCATGGGAGCACACAGAGAGATGGCAGCCACCTACAAGCCAAGAGGAGAAGCCTCACAATCAAAC
 TCGCTGCTGGCAGAGTCTGACTCTGCTTGGACTTCCAGCCTCCAGACTGTGAGAAACAAATTCTGTT
 TCAGCTCTCAGTCCTGGTTTTGTTATTGCACTGCTGAGAACACAGCTGTACGATTATTGTCAAACAGAAAA
 CACTGATACTTAACAATGCTAATGCAATTATTATTGTTCTGACTCTACAAAACGTTCTAAACACTAATC
 TAAATATTAACAGTAAAATATTGCTACTAATGAAACTAAGAAATCATATGACCAATTTCACCTATTGGT
 AATCTTACTCTACTGATTCCCCCAGACTGTGATTGAACTCCTGCCCTTCTCTGTCTTCTGTT
 TTCATGGAATTCCAGTTATCTGGCTTGAATTGCAAGCTCTCTAACCTAAGCAAAACTGACAGATCAGCAAA
 ATGAGATAATGTTCTTTCTGACTGCATTAAATCAGATAACAATCAGCATTAAAAGCTATCTTGT
 AAATGTTGTTACTAATAAATTAGTCTTATAAGATCCTGGACTTGGAGTTGCAATGTCTTGAGAGTAATT
 CTTTAAAGINTAATTGCACTGGTTGTATCTCTTTGATTGATTTGTTAGGAAACAAAGAGGATTACTGATATTG
 ATATTGTTAAATGTTAAATAATTGAAATTGTTAGAACAAAGAGGATTACTGATATTGTTCTCTATGA
 ATGGCAAAGGTTAGCTACTGCATTCTGTTAAATAAAAGTTGAGAGTTGTTGNTCAATTAAACTGA
 AAAAAAAAAAAAAA

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FIGURE 63

MDYPASYSLAGTQHMEALLQLSLVIVLLGFRSLLSDQLGCEVLNLLTAQQYEIFSRSLRKNR ELFVHGLPGSGKTI
MAMKIMEKIRNVFHCEAHRILYVCENQPLRNFISDRNICRAETRKTFIRENFEHIQHIVIDEAQNFRTEDGDWYG
KAKSITRRAKGPGIWLWIFLDYFQTSHLDCGLPP LSDQYPREELTRIVRNADPIAKYLQKEMQVIRSNSPNIP
TGCLEVFPPEAEWSQGVQGTLRIKKYLTV EQIMTCVADTCRRFDRGYSPKDVAVLVSTAKEVEHYKYELLKAMRK
KRVVQLSDACDMLGDHVILD SVRRFSGLERSIVFGIH PRTADPA ILPVNLICLASRAKQHLYIFPWGGH

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FIGURE 64

TGGTAATAAGTGTCTACAACAAATTCCCTCCTTCATTGAAATAGACAGGTCTTGCTCGACAGCTGGACAGAC
CATACCAGCCATACCAAGGGACCTGGCATTGTGAAGGTGCTGAGGAGGACTGAGTTGAGTTACCAAATCAGC
CTTCTTGACCCCTCGGCTTAGCATTCAAGTCATTGACATTCTCTTACCTGTGCCGCTGATCTCTAGACCTG
CCATGAGTGTGAAAGAGGCTTCGTTTTAGTGACACTTACCCACCAATTTCACACTCAAGAATCTTCATATTCT
TATTGTCTCACAAATCAGAATAATTGGCATTTCCTACTCAGTCACTAGGTGCTTAATTGTGTTAGAAATA
GCCTTTGATTCTTGGATTGTTTTGCCCTAACAGTCTTGATTCCGTACTAAATTACCTGACAAAACCTCA
CTCTCTCCAACATCAATTAAAGGGATTAAAAAAATAATTACACTTAAACACTAGAAAGAGTCAAGTTTTAG
CATATGTTATGGCTTGCCAGTACGAGAAAAGTGA

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FIGURE 65

MSVKEASFFSDTLPNQFSLKNLHILLSHNQNKLAFSSLSLLGALIVFRNSLLILLDLFALARVLISVLYNLTKLT
LSNIN

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FIGURE 66

CACGAAGTTCTCGCGAGAGTCGTCTCCTCGATAACCAAGCGCTGTCTGGCAGAGCTGGTGTGAGACGAGACAA
TCCTGCCCGCCGCCGGATAATCAAGAGTTGGCCGGACCTTGAGCATAACCCGAGAGACTGAGGAGGCCAGA
CGACAAGCACACACTATGGCGCTGAAACGGATTAATAAGGAACCTAGTGATTGGCCCGTGACCCCTCAGCACAA
TGTCTGCAGGTCCAGTTGGGGATGATATGTTCATGGCAAGCCACAATTATGGGACCTAATGACAGCCCATA
CAAGGCGGTGATTCTTTGACAATTCACTTCTACAGACTACCCCTCAAACCACCTAACGGTGCATTACA
ACAAGAATTATCATCAAATATTAACAGTAATGGCAGCATTTGCTCGATATTCTAAGATCACAGTGGTCGCCT
GCTTAAACAATTCTAAAGTTCTTTATCCATTGTCACTGCTATGTGATCCAACCCAGATGACCCCTAGTG
CCAGAGATTGCACGGATCTATAAAACAGACAGAGATAAGTACAACAGAAATCTCGGGATGGACTCAGAAGTAT
GCCATGTGATGCTACCTAAAGTCAGAATAACCTGCATTATAGCTGGAATAAAACTTAAATTACTGTTCCTTT
TGATTTCTTATCCGGCTGCTCCCTATCAGACCTCATCTTTAATTTTATTTTGTACCTCCCTCATT
CATTACATGCTCATCTGAGAAGACTTAAGTCTCAGCTTGGACAATACTGCTTAGAAACTGTAAAGTA
GTTACAAGAGAACAGTTGCCAAGACTCAGAA~~TTAAAAAA~~ATGGAGCATGTGATTATGTGGCCAATG
TCTTCACTCTAACCTGGTATGAGACTAAAACCATTCTCACTGCTCTAACATGCTGAAGAAATCATCTGAGGGG
GAGGGAGATGGATGCTCAGTTGTCACATCAAAGGATACAGCATTATTCTAGCAGCATCCATTCTGTTAACGCCT
TCCACTGTTAGAGATTGAGGTTACATGATATGCTTATGCTCATAACTGATGTGGCTGGAGAATTGGTATTGAA
TTTATAGCATCAGCAGAACAGAAAATGTGATGTATTATGCAATAAAAGGAATGACCTGTTCTGTTCTA
CAGAGAACAGGAAATTGGAAGTCAAACACCCCTTGTATCCAAAATAGGGTCTCAAACATTGTAATTTCATT
AAATTGTTAGGAGGCTGGAGCTATTAGTTAATCTATCTTCAACACTGTTAATATAGCACTGAATAATGA
TGCAAGTTGTCAATGGATGAGTGATCAACTAATAGCTCTGCTAGTAATTGATTATTTCTTCAATAAGTTGC
ATAAACCAAAAAAAAAAAAAAA

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FIGURE 67

MALKRINKELSDLARDPPAQCSAGPVGDDMFHWQATIMGPNDSPYQGGVFFLTIHFPDYPFKPPKVAFTTRIYH
PNINSNGSICLDILRSQWSPALTISKVLLSICSLLCDPNPDDPLVPEIARIYKTDRDKYNRISREWTKYAM

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FIGURE 68

GGCACGAGGTGATTTCTACTCCACTGTACTGGANCCACCAAGGCAGGAACGTGTCTCTTACCACTACAGT
TCCTGTATCTTTAGGTGCGTAGTATTCTGGTGAGTCAGTCAGTCTCCAGACTCAGTCATTTCTACATT
ACACATTCTTCACATTCTCCACCAGTCTCCTAGACTGTTCATTCCTCCCACATCTGTCTATGTAT
CTCTTCCCACCATTCAATTCCAGATAGCATCTAGACTGTTGTTAAAAAGAAAACCTCTTCACACCACATT
CCATTAATGCCTTCCCAGTGGCCTTGAACACCAAACCCAGGCCTTAAGGCTATGTCATCTCCTACCATTGATC
TCAGACCTAGCTGCAGTTGCACAATAACACCCCTGGCTCAAGTCTCTGCACACATTGTTCCCTCACAGGCAGGA
ACCCTATGGTACTGATCAATAATTAAACTTGCCCTGGGCCAGGCACAGTGGCTTACACCTATAATCCTAGCAC
TTTGGGAGGCCAAGGTGGATCAGTIGAGGCCAGGAGTTACAGACCAAGTCTGGGCATCATAGAGAGACCTTGCCTC
TACTAAAAAAAAAAAAAA

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FIGURE 69

GGGGCGGAGAGAGGCAGGCCACGGGAAGGGGAGCGTGGGCCGTGGAATGGTGAATTAAAGGTCCATCGAGTA
CGTTTCTTAATTATGTTCCATCAGGAATCCGCTGTGGCTTACAATAACCAGTCAAACAGATTGGCTGTTCA
CGAACAGATGGCACTGTGGAAATTATAACTTGTCAAGCAAACACTTTCAGGAGAAATTTCAGGTGAGATTATG
TCTCGGGCTACAGAAGCTTGTGCTGGCAGAAGGCAGCGACTCTTAGTGCTGGCTCAATGGCGAGATTATG
GAGTATGATTTACAGGCAGTAAACATCAAGTATGCTATGGATGCCTTGGAGGACCTATTGGAGCATGGCTGCC
AGCCCCAGTGGCTCTCAACTTTGGTTGGTGTGAAGATGGATCTGTGAAACTATTCAATTACCCAGACAAA
ATCCAGTTGAAAGAAATTGATCGGCAGAAAAGTCGCATCCTGAGTCTCAGCTGGCATCCCTCTGGTACCCAC
ATTGCAGCTGGTTCATAGACTACATTAGTGTGTTGATGTCAAATCAGGCAGCGCTGTTCAAAAGATGATTGTG
GACAGGCAGTATATGGCGTGTCTAAGCGAAGTGCATCGTGTGGGTGTCGCCCTTGTCCGATGGCACTATC
ATAAGTGTGGACTCTGCTGGGAAGGTGCAGTTCTGGGACTCAGCCACTGGGACGCTTGTGAAGAGCCATCTCATC
GCTAATGCTGACGTGCACTGCAGTCCATTGCTGTAGCTGACCAAGAACAGTTCTGGTGGGGCACAGCCGAGGGAAACA
GTCTTCATTTCACTGGTCCCTGTGACATCTAACAGCAGTGGAGAACAGCTGGGTGCGGACAAAACCGTTCCAG
CATCACACTCATGACATGCGACTGTGGCCCACAGCCAAAGCGCTGATATCTGGAGGCACTGACACCCACTTA
GTCTTCGTCCCTCATGGAGAAGGTGGAAGTAAAGAATTACGATGCCGCTCTCCGAAAAATCACCTTCCCCAC
CGATGTCATCTCTGTTCTAAAAGAGGCAGCTCTCCTCTCCAGTTGCTCATCACTTAGAACCTTGGCGA
CTGGGATCCACAGTTGCAACAGGCAGAACAGGAAATTCTGAGCTGTATCTCCCATGTGGAAGTTGGATAGCCTATTCTACA
CTAAAGACAAAGGGCCTGAGAACATTATCTGAGCTGTATCTCCCATGTGGAAGTTGGATAGCCTATTCTACA
GTTTCTGGTTTTCTCATGGCTGAATTATGAACATGACAACATAAGCCTAAAGGGTTCCAAAATGCCA
GCATTCCCTCGCTGCCCTCAGATTGTTCTGAAGATTCAACAAAGCTTTGTAGCATCAAATCAAGGA
GCTCTGCATATTGTTCACTGTCAGGAGGAAGCTCAAGCACCTGCATGCTTCCAGCCTCAGTCAGGAACAGTG
GAGGCCATGTGCTTTGGCAGTCAGTCCAGATGGGAATTGGCTAGCTGCATCAGGTACAGTGTGGACTCCAT
GTCTACACGTAAAACAGCTAAAGCTTCACTGCACGGTGCCTGCTTACAATTCCCTCCAGTGCATGCTATGGCTATT
GCCCTCAATACCAACAACCTTGTCACTGCTCATTGACCAGCAGGTATTGAGTACAGCATCCCAGACAAACAG
TATACAGATTGGAGCCGGACTGTCCAGAACAGCAGGGCTTCACCACCTTGGCTCAAAGGGACTCCTATCACA
CACATCAGTTTCATCCCAAGAGACCGATGCACATCCTCTCCATGATGCCATCATGTTCTGCATCATTGACAAG
TCATTGCCCTTCCAATGACAAAACCTTACTCTACAATCCATTCCCTCCAGAATGAATCAGATGTCATCCGG
AGGCGCACAGCTCATGTTAAAATTCTAAGATATATAAGCCTCTACTCTCATGGATTTGGATGAAAGA
ACACTCGTGGCAGTAGAACGGCCTCTGGATGACATCATTGCTCAGCTCCACCACCCATTAAAAAGAAGAAATT
GGAACCTAAAACAGGGCACTGTCTGTGCTCTCCTTGAACTGTCTACCCCTGGCTTTCAAAATCATGGTAAT
AAAACAAGTTATTCTTG

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FIGURE 70

MGEFKVHRVRFFNYVPSGIRCVAYNNQSNRLAVSRDGTVEIYNLSANYFQEKFPGHESRATEALCWAEGQRLF
SAGLNGEIMEYDLQALNIKYAMDAFGGPWSMAAPSGSQLLVGCEDGSVKLFQITPDKIQFERNFDRQKSRLS
LSWHPSTHIAAGSIDYISVFDVKGSAVHKMIVDRQYMGVSKRKCIVWGVAFLSDGTIIISVDSAGKVQFWDSAT
GTLVKSHLIANADVQSIAVADQEDSFVVGTAEGLTVFHQLVPVTSNSSEKQWVRTKPFQHHTHDMRTVAHSPTAL
ISGGTDTHLVFRPLMEKVEVKNYDAALRKITFPHRCЛИCSKKRQLLFOFAHHLELWRILGSTVATGKNGDTLPL
SKNADHLLHLTKGPENIICSCISPCGSWIAYSTVSRRFLYRLNYEHDNISLKRVSKMPAFLRSALQILFSEDST
KLFVASNQGALHIVQLSGGSFKHLHAFQPQSGTVEAMCLLAVIDWSRTVQKQGFHHLWLQRTPITHISFHPKRPMHILLHD
NFPVTAMAIAPNNTNNLVIAHSDQQVFEYSIPDKQYTDWSRTVQKQGFHHLWLQRTPITHISFHPKRPMHILLHD
AYMFCIIDKSLPLPNDKTLINYNPFPPTNESDVIRRRTAHAFKISKIYKPLLFDLDERTLVAVERPLDDIIAQL
PPP IKKKKFGT

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FIGURE 71

GAGGCGCCGGCGGCCACGCCGCGGAAGGCGCGGGCCGAGCAGAGGCCGGCGTGGAGCCCGCGGCATGGAGG
CGTTGCCGGCAGCCCCCTGAGGGCAGCGGGGAGACAAGACCCGGCGACCTCGCGCATCCCTCGAGCCGCACGCG
CTCTCGCCACCGGGCGGCCACGGGCCGCGAGCCGGCGCGGCCATGGCGACGGCGGCCCAGCAGAAGGAGAACAC
GCTGCTCACCTCTCGCCGGCGGTGTGGAGGCACAGTTGGTGTATTTCACTTGTCCACTAGAAAGTCATTAA
GACACGGTTGCAGTCTCAAGATTAGCTCTCCGGACAGTCTACTATCCTCAGGTTCATCTGGGACCATTAGTGG
AGCTGGAATGGTGAGACCAACATCCGTGACACCTGGACTCTTCAGGTTCTGAAGTCATCTGGAGAAAGAGGG
ACCAAAGTCACCTTTAGAGGTTGGGTCAAATTGGTTGGAGGTGACCATCAAGGGCTGTATACTTGCATG
TTACTCCAAGCCAAAGAGCAATTAAATGGCATTTCGTGCCTAACAGCAATTGTGCATATTTCAGCTGG
CTCTGCAGCTTTATCACAAATTCTTAATGAATCCTATATGGATGGTTAAAACCCGAATGCAGCTAGAACAGAA
AGTGAGGGCTCTAACAGATGAATACACTCCAGTGTGCTCGTACGTTACAGACCGAAGGCATTCTGGCTT
CTATAGAGGATTAACGCCCTCGTATGCTGGAATTCCGAAACTATAATCTGCTTGCTATTTATGAAAGTTAAA
GAAGTATCTGAAAGAAGCTCCATTAGCCTTCTGCAAATGGACTGAGAAAAATTCCACAAGTTTTGGACT
TATGGCAGCTGCTGCTCTTCTAAGGGCTGTGCCTCCTGCATTGCTTATCCACACGAAGTCATAAGGACGAGGCT
CCGGGAAGAGGGCACCAAGTACAAGTCTTGTCCAGACGGCGCGCTGGTGGTCCGGAAAGAAGGCTACCTG
CTTTTATAGAGGACTGTTGCCAGCTTATCCGGCAGATCCAAATACTGCCATTGTGTCTACTTATGAGTT
AATTGTGTACCTGTTAGAAGACCGTACTCAGTAAACAGGCCGAAATTGTGCTCTAGAAGAATAAAACTGAAAAAA
CTCTAGAGAATTTTTCCCATTGATGTTAGAAAGTTGAGACTGAAACAGGAAGGCCATAAAATATCTGG
TTCATATCACCTGTTGGACATTCCCTTTGGATTCATGCTTCTGGAAGGTTAAATTCAACGTTAATAGTT
AATTATAACTTTTTTAACTTAAGAGGATTCAAGGGTTAACGCACCAACTAAATTAAATCATGCTATTAATTAA
GTATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACC

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FIGURE 72

MATGGQQKENTLLHLFAGGCAGGTGVAIFTCPLEVIKTRLQSSRLALRTVYYPVQVHLGTISGAGMVRPTSVPGLF
QVLKSILEKEGPKSILFRGLGPNLGVAPSRAVFACYSKAKEQFNGIFVPNSNIVHIFSAGSAAFITNSLMNPPIW
MVKTRMQLEQKVRGSKQMNTLQCARYVYQTEGIRGFYRGLTASYAGISETIICFAIYESLKYLKEAPLASSANG
TEKNSTSFFGLMAAAALSKGCASCIAYPHEVIRTRLREEGTYKSFVQTARLVFREEGYLAFYRGLFAQLIRQIP
NTAIVLSTYELIVYLLLEDRTQ

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FIGURE 73

ATGGCATCTAGTCCGTAGCTTCCCACCGAAGATGAACAGGGTTCTGGGGCATCGACGATCTCCATATTCATTG
CAAGCTAACAGGAAGACACCCAGAAGAAAGCCTCACGTGCTGGATAAAACTCACAGTTGCCAGGCACACTTCT
CCCTCAGTTATATCCGACCTATTACAGACATTAAAAGGGGCATGCTCTCTGGATCTGCTAGAAGTACTTTCT
GGGCAACAGTTGCCCTCGGGATAAAAGGATCTAATACCTTCCAGTGAGAATCAATATAGAACATGCCTGACATT
CTAAGAAACCGATCAATTAAAGCTAATAAAATTCACTGTTACTGATGATATTGATGGAAACCCATCCATTATCCTT
GGCCTAATTGGACAATTATCCTGCACTTCATATTGAGAAGCTGCCAGACTCTTCTTGCATTACAATCAG
CCTTCCCTGGATGATGTGAGTGTTGACTCATCTCCTGCCCTCAAGTCCCTCAGCTAAGAAATGCTCTAAAGTG
CAAGCAAGATGGCAAATGTCTGCAAGAAAGGCCCTCTTGTGGGCTCAGGAACAATGCCACCTATGAGTCT
GTCAATGTGACCGATTAAAGTCAAGTTGGAGAAATGGGATGGCTTTTGCCATCATTGATGCCTTGCGACCA
GACCTAATTGACATGAAGAGTGAGCATAGATCCAACAAAGACAATCTGAGAGAGGCCCTCAGAATTGCAGAA
CAAGAATTAAAAATCCCCAGATTGCTGGAACCAGAACGCTTACAAAAACTTCTGAACATTAGCAGTCAACTCTCT
TCAGCTGATGTGAGTCAGCTAGTTCCAGCACACTCTGACCAGATGTG

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FIGURE 74

MASSPELPTEDEQGSWGIDDLHISLQAEQEDTQKKAFTCWINSQLARHTSPVISDLFTDIKKGHVLLDLEVLS
QQQLPRDKGSNTFQCRINIEHALTFLRNRSIKLINIHVTDIIDGNPSIILGLIWTIILHFHIEKLAQTLSCNYNQ
PSLDDVSVDSSPASSPPAKKCSKVQARWQMSARKALLWAQEQCAYYESVNVTDFKSSWRNGMAFLAIHALRP
DLIDMKSVKHRSNKNLREAFRIAEQELKIPRLLEPEAYKNF

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FIGURE 75

TTTAGATGACTGAACTATTTATAATAAAAATGGTTAACACTGTTGCCAAAAGCACAATTCTTACAATTAA
TATTCCCATTAATATTGCCAAATACCTTATATATCCTACTCCTGCTGATCACCAAAATTGTACAGTCTTATCT
TGCAAATATAGTACATATACAATTAAACAGTTGGAAAACATATAGAGATTGACCACAAATAAGGCCACAAGGTA
CTGCTGTGTAATGTATCTACCATCAGGTTGATCAGGCCAGTTGTATATTGACAGCAAGAAAAATATTAACGT
TTCTGTTAGAGC

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FIGURE 76

ACCCCTCACTAAAGGAAACAAAGCTGGAGCTCAAGGATCCTTAATTAAATTAAATCCCCCCCCCCCCCGGNATG
CGCGTTGCGCGCCGGACCGCGAACGTCTGCCGGTGTCCCCGCGCTGCTGGTCCC GG GTCCCTGAACC CG C GGG CG
GCC CG CT CC CT TG CT GG CC AT GG C C C C C C G C C G C G T G C C G G T C C C G A T G T C A C C G C C G C C G C T G C T G
CTGCTGCTGCTGCTGAGTCTGGCGCTGCTGGCGCCCGGGCCCGCGCAGGCCC G C G G A G T G C C G T C C C G C G
CAGAGCCGCCCATGCGTGGACTGCCACGCCCTCGAGTTCATGCAGCGC G C C T G C A G G A C C T G C G G A A G A C A G C C
TGCAGCCTGGACGCGGGACGGAGACCCCTACTGCTGCAGGCAGAGCGCCGTGCCCTGTGCGCTGCTGGCCAGCG
GGGCACTGAGGACCACGCTGCCGTGTGAATAAATGCCAGTGGCAAAAAAAAAAAAAAAA

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FIGURE 77

ATTTCTGTCCTTCATTGCCCTAGATTGTGTCATTAGACCTTCAGGACCTCTCCAAGAAGCCTCCGGACTGG
AAGAACTCATCATTCTCAGACTGGAATTTCATCGGCTTACAGGTTGAAATCTCCTTCATCTAAAGGCATT
GACCTACAGACAATTCACTCCGTGAGTTACAGACTGTTATGTCCTTCAGAATACGATTATCTTGACAATAAA
GCTCACAGTGGCAAAATCAAATCTATTTGACAGTGATGCCAAATTGAAGAATGTAAGACTTGACATATT
GGATCTACTCAGAAAAATGCTCAGTATGTCCTGGTGTGATGCATTGTCATTGTGATTGCTGGCATCTCTT
ATTCTGTGTACAAGATCCATTGTTCTGCTCTAAGGTTACGGAAGAGATTCTAAATTCTCCTGGAGAAGTAC
AAGCGGCCCTGTGTGACACCGACCAGTGGGAGTTCATCACGGCTGGTATGTCCTGGTATTATCAGCGACCTA
ATGACAATCATTGGCTCCATATTAAAATGAAATCAAAGCAAAGAATCTCACAAACTATGATCTCGAGCATT
TTTCTTGGAACCTCTACGCTCTGGTTGGGTTGGAGTCATCAGACATCTGGTTATTCCAGGCATATAATGTC
CTGATTAAACAATGCAGGCCCTCACTGCCAAAAGTTCTCGGTTTGTGCTTGTGCTGGTATGATTATCTGGT
TACACATTCTGTGGCTGGATTGTCTTAGGACCATACCATGACAAGTTGAAAATCTGAACACAGTTGCTGAGTGT
CTGTTTCTCTGGTCAACGGTGTGACATGTCACCTTGCACCTTGCCAAATCCAGCAGAAGAGCATCTGGTGTGG
CTGTTCACTCGTCTGTATTATATTCTTCATCAGCCTTTTATATATGATTCTCAGTCTTTTATTGCACTT
ATTACAGATTCTTATGACACCATTAAGAAATTCAACAGAATGGGTTCTGAAACGGATTGCAAGGAATTCTG
AAGGAATGCAGTAGCAAAGAAGAGTATCAGAAAGACTCCTCAGCCTCTGCACTGCTGTGGAGGAGG
AAAAGAAGTGATGATCAGTACCTATTAGCTAAAGTTCTGCTAAAGATGATTAAAGITCAGGCATCCTTATC
CAGCGGCTGAGCAGAGGAACCCCAAATGACTGGACAAGCAGTCCAAAATGACTCTCTTATTAAATGTGGAGT
GGGAAAGAGGACTCACAGTTAGCCAGCTGACCATGACTGAAGTCCAGCTTACTTTTATAAACTTGAATGATA
AAGAATAGACCATGGCTACTACTGGCATTAGTCACATATAACAGCGATAATAAAATTCTCTATTAGTCTGTTA
ATTATGACATGATCTCGGAATGGAAAAGATCATTCAGAGTGTGCGAAATAATAGTCTTTAACATGTAATTAA
AATATGTGTGTTATTGTCAAATAAGGATTGTTAAAGGTGATTCTGGGTTGAAGACATTGTAATTCA
GGTCTGTACAGAAATGAAGCTGGTTGCAATACCAATCTAGAGAGTCCAAGCTGGCGAACTATTAAGCTGTTAAA
GATCACCCCTT

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FIGURE 78

ISCSFIALDCVQLDQDLSSKKPPDWKNSSFFRLEFYRLLQVEISFHKGIDLIQTIHSRELPDCYVFQNTIIFDNK
AHSGKIKIYFDSDAKIEECKDLNIFGSTQKNAQYVLVDAFVIVICLASLILCTRSIVLALRLRKRFLNFFLEKY
KRPVCDTDQWEFINGWYVLVIISDLMTIIGSILKMEIKAKNLTYDLCSIFLGTSTLLVVVGVIRYLGYFQAYNV
LILTMQASLPKVLRFCACAGMIYLGYTFCGWIVLGPYHDKFENLNTVAECLFSLVNGDDMFATFAQIQQKSILVW
LFSRLLYLYSFISLFYIMLSLFIALITDSYDTIKKFQQNGFPETDLQEFLKECSSKEEYQKESSAFLSCICCRRR
KRSDDHLIPIS

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FIGURE 79

AAGGGGTTCCAGTACTTCTACCCCTGGAAAGAACAGAGAACCTTGAGGCAGGCCAGGGACCCAGCCCTAC
AACATCAGAGAAGACTCCATTCTGGACCAAAAGGTGCCCCCTGCTCAAGGCATAATGGGGCCACCGTGGCATCC
ACAGTTGCAGGGTGTTCGGAAAGGTTCTGTCACTGTGATTGGATGCTGGATGCCGCTGATAGACATGCTGGC
CTGGCTGAGAAACCCCTGAGCAGGTAACCCAGGGAAAGAGAAGGAAGGCCAGGCCTGGAGGTCCACGGCAGTGGGAG
TGGGGCTCACTGGCTTCCCTGGGGATGACTGGAAAATGACCTCGCTGCTGTTCCCTGGCATGACCCCTTTGGAA
GAGTGGTTGGAGAGAGCCTCTAGAATGACAGACTGTGAGAGGAAGCAGGGCAGGGGTTCCAGCCCAGGGCTG
TGCAGGCATCCTGGGCTGGCACCTCCCGCTCACCAAGTGCCACCTGCCGGGAGGGACGGGCAGGCAG
GAGTCTGGGAGGGGGTCCGCTCTTGCTGCGGCATCTGTGCTCTCGAGAGAAAACCAAGGTGTCAAAT
GACGTCAAGTCTATTTAAAAAATTTGTGTTCTAAATGGAAAAGTGATAGCTTGGTGATTTGTAAA
AGTCATAAAATGCTTATTGTAACAGGAAACCACCCCTCACCTGTCCACTTGGGTGATCATTCCAGACCC
CTCCCCAAACATGCATATGTACCTGTCCGTCACTGTGAGATGTATGTTACAGTTCTACATAATGGGATCATT
TTATACATGGTGCTCTGGAACCCACATTTCATGCAGTCATTGCAGTGAATTATTTATTGTGATAATAAATAG
CATTAGAATACAAAAAAAAAAAAAA

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FIGURE 80

GCCTGGAATAGCCTGGCTACTACCCCTGCACCTGTCCCCCTGCTGTCCCCAGGCCCTCTGCCCTGAATCTGCCCTC
TCTCTGCCCTCTTTCTCCGTCCCTCAGGAGTCTCTGCCCTCAACCACCTCTCTGCCCTTCATCTCTCTGA
GCTGGTGTCTGGCCTACCCCTGTTGGGAGCTGTCTGGCTCTGTCCCCCACCTCTGGCCAGGCCGTGTC
TCCTGTCTATGACTGAGCCAAATTGCCCTGTTGCCCTCTGCAGGTGTTCCACGAGCCTATCCCACCCACCTGT
TTGTTCTGAGTCTGCCCTGTGTCCTCTCCCTGTCCTCTGCCCTGTCTCCAGCTCCCTAGCATCCCCCTCC
TCCC GCCCATCTGTCTTCTGCCCTCTGTGGCTGTCCTGTCTGTCAGTCTTCTATGCCCTGCTTCTTGT
AACTTCAGTTCTCCTACTCTCTCTGCCACCTTCTGCCATCCATCCCACCTCTGCCGTGTC
CTGCTCTGTGAGTCATCCCCCTGTCTGCCCTGTCACTCTCTAGCTGTGGGCTCACACCCCTCAATCTTCAGGC
CATTTC CCCCCACCATCAACACAAACAAACCGCTGTCTCCCTCCAAGTGGGCTCAGATAGGGGCCGCCCCCTCT
CCACCTCTCCCCGCCAGGGCCAGAAGGGAGGGAAACGAAATTAAAATTAACATTCTTCAGGAAAAAAA
AAAGTACCGCTCCAGAGCAGGAGCCTAGGCAGCCAGGGTGCCGAACCTGAGTCAGTTGCCACTTCA
GGAGCTGAGAGGAGCAGGATGGAACGTGAGGATCAAAGATGAATGGAGCCCTCCCTGGATGCTGTGGGCTAC
AGGCAAGAACGTGAGGGCTCTGCCAGTCGTGGCTCTGCCAGTCAGTGTCAACCTCAGCAACGCCATCATGGCAGGGC
GAGGGGAAAGACATCGTTGGAATGTCAGTGTCAACCTCAGCAACGCCATCATGGCAGGGCATTCTGGGCTG
GCCATGCCATGGCCACACGGGGTCATCTCTCTGCCCTGCTGCTGTGATTGCGCTTCTGTC
TCCATCCACCTCCTGCTGACCTGTGCTGGTATTGCAAGGCATCCGAGCCTATGAGCAGCTGGGACAGAGGGCATT
GGGCTGCGGGGAAAGGTAGTGGTGGCCACAGTCATCTGTGACAATGTTGGGCAATGTCCAGTTACCTGTC
ATCATCAAATCTGAGCTCCCCCTGGTATCGGCACCTCCTGTACATGGACCCGAGGGGACTGGTCTTGAAG
GGAAACCTCTCATCATCGTCAGTGTGTTAATCATCTGCCCTGCCCTCATGAAACACTTGGCTACCTG
GGGTACACCAGTGGTCTCTGACCTGCATGCTGTTTCTGTTGGTCATCTACAAGAAGTCCAACCT
GGCTGTGCTATAGGCCACAATGAAACAGCAATGGAGAGTGAAGCTCTGTTGGACTCCCCAGCCAAGGACTCAAC
AGCAGCTGTGAGGCCAGATGTCACAGTGACTCACAGATGTCTACACAGTGCCCATTATGGCTTTGCTTT
GTCTGCCACCTGAGGTGCTGCCATCTATACGGAGCTGCCGCCCTCAAGCGCAGGATGCAGGCCGTGGCC
AACGTGTCATTGGGCCATGTTCTGCAATGTTGGTCACAGCAACCTTGGATACTCCTACAGCAGT
GTGAAGGGAGATGTCACATGTACAGCCAGAAGGCCAGCTCATCCTCTGTGCGCCCTGGCGTGTGCT
GCCGTGACCTCACTGTGCCAGTCGTGCTGTTCCCTATGCCGCCCTGCCAGCAGCTGCTTTCCAGGCAAG
GCCCTCAGCTGCCACGACATGTGCCATAGCTCTGATCTGCTGTTGGTCATCTCCTGTCATCTGTG
CCAACCATCCGGATACTTGGAGTTATGGCTCCACCTCAGCCCCAGCCTCATCTCCTCCCCAGC
TTCTACCTCCGATTGTAACCTCTGAGGTGGAGCCTTCTATCTGAGGCCAAGATCCAGGCCCTGIGCTTTGGA
GTCCCTGGAGTCCTCTTCACGCCGTCACTGTCAGTCAAGCTTATGTTGCCACTGGCCACAAGCCAGAGCCG
CATG TCTGGACACTGATAAGGCCCTGCTGCCAGGGTCCCTGCGCATGCACATGGAGGGTCAGGGCGCTCC
GTCCCTCTGCCAACATGTGGAGGTGGCTGGTCCCATGAACGTGGTGTCAAGGGGGAGGGAGGAGGAGG
GCAGACTGCCACTCCCTCTCCCCAGGGATGCCAAGCTGGATCATGCCCTAATCCAACCCCAACCC
GGGAGGAGGAGGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGCCAGGTCTGGAGCCTT
GCCAGCCAGTCCTCTGCCCTGCCAGTCAGCTGTTGTCAGGATTACCTCGGGCTAAAGAGGAAAA
TAAAGATGTTGAGCTACCAAAAAAAAAAAAAAA

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FIGURE 81

MELQDPKMNGALPSDAVGYRQEREGFLPSRGAPGSKPVQFMDFEGKTSFGMSVFNLNSNAIMSGGILGLAYAMAH
TGVIFFLALLLCIALLSSYSIHLLLTCAGIAGIRAYEQLGQRAFGPAGKVVVATVICLHNVGAMSSYLFIIKSEL
PLVIGTFLYMDPEGDWFLKGNNLIIIVSVLIIILPLALMKHLGYLGYTSGLSITCMLFFLVSIVYKKFQLGCAIGH
NETAMESEALVGLPSQGLNSSCEAQMFVTVDQSOMSYTVPIMAFAFVCHPEVLPITYTELCRPSKRRMQAVANVSIGA
MFCMYGLTATFGYLTFYSSVKAEMLHMYSQKDPLILCVRLAVLLAVTLTVPVVLFPIRRALQQLLFPGKAFSWPR
HVAIALILLVLVNVLVICVPTIRDIFGVIGSTSAPSLIFILPSIFYLRIVPSEVEPFLSWPKIQALCFGVLGVLF
TAVSLSFMFANWATSQSRMSGH

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FIGURE 82

GTGATGGAACATAGGTTAAGATGCCATACTGTTGAAAGCAGTAAACCAAAACTCTTACGTTAAAAGACAATGCTTTC
TTCAATATGTCAGATAAAACCAGTGAAGATATATGCTACAACACTCGTTACTAGAAAGCAATAGGAAGCTTGAAG
GAAGACCAAGTTAGCAGCGTTGTATCTGGTCCAGCAGCTGCTGCTTCTAACATGCTTGCTGCTTGTCTTGC
ACCTCTTCTTCTATTATGTACAGTTAAGAAGTGGTGCCGGTAGGAACCACGGTCCCTCGTCCATTAGTT
GGAAAAGTACCAAGACCTAAACACTACCAAGCTACTAAACCATGACATCTGCTTCTAAAAGGAAATATG
CAGCACGTGGAGGGAAACACATACATGCTTGAAGAAACTGCTAGAATAAGAAATGCTGGAGAAATTGATTA
TAAGAGACTATAGCTATTAGTAAAGTAAGTAAAGGCATATCCATTGTGTAATTAAATAGTTAAATATAATT
TTTTTCTTGTGATCTGAATACTTTAAAGCTTAAGTTTATCGTGTAAATACATTAGCTAAACTGAAAAGTAT
AAGTAACATGCTTGTGCGACCAAAAAATGTAATCTGCTTTTATGACAGAATTATTAGCTGAGCTGACTT
ACTAGCTTCTATACATGTATAGAAGAACATGTATATTGAGAAAGAACATACTTATAGAGGAATT
TGTAACCATGACTTTGTAATTGAGAATTCCCTCCAGTGATGGTCAGTATTCTTTGGAATGTAACCGATT
ATGCCAACACCACCTAACCTTGTCTCAGTGTCTTAACAGCCTGCCTTTATTAATCTCAGGCTTTTAT
GAACACTCTCATTTCAGTAGAATTGGAAACTAACAGCTGGTGAATTCTTGAATTCTGTAGTAATGCCA
AAAGAAAAGTCTCAAGCAGTCCCCCTATCCAGTCATTGAGTTCACTGTCACATAGCTGGACACT
GAACCTTTGCCTAATTATTATAAGGCCTGACCTCTATTGCTCCATCTCACCCCCATTCCAGAGCAGAGGA
GTCTCTGTGGACCATGAATTGCACTGTCTCCCTCTATTCTAAATGAAAGGTATTAGATATAAATT
AAGGTTAGTTGTTGAGATGCTAACGAGGATAATAAATTAGATTAAATGTTCCCTGAAAAGTCAGCCC
GACAAGGAAATTACAAACTAGAGTATCTAGAAGGGTAAAACAAAAA

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FIGURE 83

VMEHRLRCHTVESSKPNTLTLKDNAFNMSDKTSEDICLQLSRLLESNRKLEDQVQRCIWFQQLLLSLTMLLLAFV
TSFFYLLYS

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FIGURE 84

GGAAAGTGCTTTGAATGAGGTACTGAGGCCAAGGTGTTGAAAGTCATAATTCTTCCTCGGTTAACGTGAAA
CTCTCGTATTGGAAAGGCCTGGCCTCAGTCATCAGGCCAGGAGAGGTACTGGACGCCGCGCACGCACTCGTCTG
CCAGCGAGGCCAAAGGGGAAGCCTAGCGGAGCTCAGTGTGGCAGCTGCTGCCCTCTGGCCGCTACTTGTCAAT
ACCATGCTTCCTGTAATATTGTGGTGAACAGTAACCTCAGAACCCAGACATGAAAGCTCACCTAATTGTCAC
ATGAAAGTCAAATTATATGTCATTTGCAAGTTGTCAGGTGTGAATTATGATGAAATGTGTTCATATCGAA
ACAGCTCATTTGAGCAGAACACTTGAAAGAAACTTGAGAGGATAAATACAGTACAATATGAACTTCAGAT
AACAAAGAAAGACAACACCCCTACAGTGTGAAATGAAAGTTAATTCAAGTATTCTTCAGGTTGTGCATCTAATCAT
CCAAAAAAATTCAAGCTAAAACCTGACTAAAGATAGTACTTTAAAACATGAAGGCTCTATCAGAGAACTTAAC
GAATCTAGAAAATTCTGAAAAGTAGGGAAAACAGTCCAGCCTGACCGAAATAAAAGGATCTGTTATGAAACA
ACATACAGTCCTCTGAATGTCATTCTGTGAAAATAGAGGAGCACAGTGAAGATATGAAACTCATGTGAAA
ACAAAGCATGCCAATTTAGACATTCCATTGAAAGACTGTGATCAACCACCTATGATTGTCATATGTTGGG
CTCATATGTACAATTACCATATTCTTCAGGAACATGTTGACTTGCATTGAAAGAAAACAGCTTCAGCAAGGC
ATGGATAGAGTCCAGTGTCTGGTGAATCACAATTGGCTCACAGCCTCAGCAAGAAGAACAGAAAGAGGAGA
TCTGAAGAATCAAGACAAGAAATAGAAGAATTTCAGAAGCTGCAGAGACAATATGTTAGATAATTCTGGAGGA
TACAAACAACAACACTACGAAATATGGAGATAGAAGTAAATAGGGGAAGAATGCCCTCATCTGAATTTCATAGG
AGAAAAGCTGATATGATGGAATCATTAGCTTTGGTTTGACGATGGAAAACAAAAACTCCGGATTATTGAA
GCACCTCATAGGTATTATCAGAATGCTGCCACAGATGTGAGACGGGTGTGGCTTCTCAGTGGTGGATCACTTT
CATTCACTTTAGGCGACAAAGGTTGGGTTGGTTACAGAAATTCCAATGCTACTTCATCATTATTACAA
AATGATGTTACAACGATTGCTAAAAGGTATGTTGATTCTTCGCAATTCCAAAATTCAATCTATGATTGAAGAT
GCATGGAAGGAAGGTTTGATCCTCAGGGGCCTCTCAACTTAATAACAGGTTACAGGAAACAAAGCCTGGATT
GGAGCATGTGAAGTATATACTCCTGACCTCCCTAAGGGTAAAGTGTATATTGTTGATTTCACAAATCAACT
GGTCCTTGGGTACACACCCCTCGTTATTGAATGGATATTGAACATTATTCTTCAGAGGGAGAACAGGAGTCCA
AAGGTAGTGTGTACATCTAAACCTCTATCTTCAGCATCAAGGTACAGTCGAACGTGTTATTGAAATTGAA
GAGAAAAAAACCGAACATTATGTTACTAATACTTGATCCTGGATGTCTCTCGAGAAATGCAGAAATTATTA
AAGCAAGACATAGAGGCTAGCAGTCTCAAGCAACTTCGAAATCTATGGAAATTAAAACATAAGCAATACCAG
ATATTGGCAGTAGAGGGTGCTTCTCTAGAGGAGAAACTTGCCAGGAGACAAGCTTCAGTCTTACAGCC
GAGAAGATTCTTGAAGAATCAAGCATTAAAGCATTTCAGTGTGATTGAGAACAAACTTGTGTTCTAAATGTAGA
TATTGAACTCCTTAATACAATTATGAATCTGTGAATTCTTAAGTCTTAACATATAATTAAATTCTAAATGC
CTGTGTAAATTGAATTACCTATCATACTTCATTGTTGGTAAATTATTCAATAAAATGTCTTGTGTTTGCA
TGTGAAAAAAAAAAAAAA

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FIGURE 85

MLSCNICGETVTSEPMKAHLIVHMESEIIICPFCKLSGVNYDEMCFHIETAHFEQNTLERNFERINTVQYGTSDN
KKDNTLQCGMEVNSSLGCAHNPKNSAQNLTKDSTLKHEGFYSENLTESRKFLKSREKQSSLTEIKGSVYETT
YSPPPECPCGKIEEHSEDMETHVKTKHANLLDIPLEDQPLYDCPMCGLICTNYHILQEHVDLHLEENSFQQGM
DRVQCSGDLQLAHQLQQEEDRKRRSEESRQEIEEFQKLQRQYGLDNSSGGYKQQQLRNMEIEVNRGRMPPSEFHRR
KADMMESLALGFDDGKTTSGLIEALHRYYQNAATDVRRVWLSSVVDHFHSSLGDKGWGCYRNFQMLSSLLQN
DAYNDCLKGMLIPCKIQSMEADAWKEGFDPQGASQNNRLQGTKAWIGACEVYILLTSLRVKCHIVDFHKSTG
PLGTHPRLFEWILNYYSEGEVGSPKVCTSPPYILOHQGHSRTVIGIEEKKNRTLCLLILDPGCPSREMOKLLK
QDIEASSLKQLRKSMGNLKHQYQILAVEGALSLEEKLARROASQVFTAEKIP

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FIGURE 86

GTCAAAGTCTCCGGAGCCCATTCCGGAACGGTGAGTTGAAAGAAGTTCCTGCACCGTAGTTCCAAGT
 CTGCAATCCCCAACCATGAGCGCCTCGGCGTACTGTCTTACCCAGCAAGGATGGGAGCAGGTGCTGGCAA
 AGTGAAACGGCTGGTTACCTGGACGCCCTGCGCCGAGAGCCTGCACTGGGCTGCGATCCACCCGTCT
 CCTGGAGGCGGTGGGGGCTCTGACTGTACCTGCGAGAGTCAGCCGACGCAATTGGTGGAGCCAAGCA
 GCCCAAGGCAGTGGCTGAGCTGCCTGCTGAAAGGCCGACCGTGGAGATCCTACGGGACATCATCTGCC
 CAGTCACTTCCAGTATTGTGTTGGTACAACCGTGAGCCACGCTGTCCACCTCACAGCTAATCATGTOCCAGC
 GGCAGCGGCCGAGATGGAGGGCAGCAGCCGTGTCAGCAGCTGGAGGAGAAGCTGTGAATGGATGG
 CAACATGAACACACGGCGAGGTGTTCATGTCCTTATTGCTGCCCTGTTGCTCCCCACTTGCCTGAC
 TCCAGCTTGCATCCCTTCCACTGCTACCCAGGATGTGACCTCCTTAATAGGCCCGACCGGACAAGAG
 GAAGCTGGGAAGCCTGGGTGATGTGGACTCCACTACGCTAACCCAGAGCTGCTGCTGAGATCAGATGCCTAGT
 GTCAGGCCTCAGTCTCTGTGAACATTAGGAGTACGGGAGGAGTGTGCTGAGGTTCTTAAGTCAGGT
 CATCGCTGGATCTGCCAATTATGCCCTGCAAAGAACAGGAAGAAGACTGCTGCAGGCAGGGCATCAGTGGT
 TTTGTGGACAGAACCCCTGGATCTCACAGGAGCAGTTGGACATCATGGAGACAACCTAGTAGAGAACATCATTIC
 AGCACTTCCCCAGCTCCAGGCCACACAAATGATGTGATGGTAACTGATAGCGCTCACTGCACTCCATACTGA
 GGAGGAAAATTATAATGTGGTGCACCAGGCTGCTTCACAAATCCAGTGACACCACAGCCAAGCCCTATGGGA
 AGCTTACTGAAACACTAACGACAAAGAGGCAGTGATGGAAGTTCGGAGACATCTAGTGAAGCGGCAAGCAGAGA
 AACCTGCCAATCAAGATGAGTATGGGAGAGTCACACGGGACAGCTCATGCTCTATATTAGCTCTTCAAGAA
 AACCTCAAAGCTAACTGAATCATTGGCCCTCCAGCTGGACTGCCACAGCTCAAACGTTGAAACACCC
 ACAGACTGCCAAGTGGGACAACCTTCTGGCTTTGAAAGGCTCTTCAGAGCATTGGGAGTCAGCAATGTC
 CGTTGTGTTAAATCAGCTGCTGCCATGATTAAGCCTGTAACCCAGAGAACCAACGAGGACTACAGCCCTGAGGA
 ACTGCTGATCCTCTCATATATATTCTGTCACTGGAGAGCTACGGTAGACAAAGACCTGTGAGCAGA
 AGAAAAAGTCAAGAAAGCATTGGCTCAGGTCTCTGAGGAATCTGGATTGTCACCTTGCTGCAAAAAATTAC
 GGACTGGGACTCTCAATTAACTGACATTCAACAAATCCAAAATTGCGTGGATGAACTCTTACTTCACCTCG
 GGATATTGCTGGAGCTCGGAGTCTCTGAAACAGTTAAGTGTATATGTCCTGGAAATCATAACCCACCAGGC
 ATCTTATAAGCCATTGTAAGCAAGTTGGAGGAATATTCTACCCGAGAGGCCAGATTCCGTTGATATTGA
 ACACATGTCITCAGGCCACTGATCTCTTAAACTGGATTAGCATGTTCATGAAGGTGAGCCGCCCTCATCC
 TAGTGAATCCCCCTCTGATCCTTTGTTGAGGTGGGTCACAGTCTGTAAGTGAATGGTCAAAGATCT
 TGTGGCATCGTTGAAAGCCAAGAACCCAGTAATCGTGTCCACAGCAGCTCTGAAAGCCACTTAACATTCTGA
 GCTGTTATTGCAACTGACCCACTGCATCCAGACCTGGCTCTGAGCATCCGTAAGAAGATAAGACCTACTCA
 AGCTGGAAATGCCATGCAATTCTGCCACACTCCAAATACTCTCCACACCAGCCCTGTCACTAATTG
 CGAGAATGATGGAATTCTGCCCTGAAAGGTCTTGATACCTACTCAGTGAGGTACTTGCTGGATTGCTGTGATTG
 TTAAAAAAAAAAAAAGTTTTTATTCTGAAAGCGACAGTCTGTTGGAGGTTCTGAGTCCATTAGTGT
 CGTTCCATTATCTTAAACCTCTGTTGATCTCCTGATCTCACCTACAAGTCTATTAGTTCAAATAAAA
 GCCTGTTGGCAAGTGTGGTAGATTACAACCTTTTATTGAAAGTTGCTGAGAAGTTAGACATGCTTGAAT
 TATGAGTGTGGGAAATTGATGTTCTTAGGATTATAACTGAGGAGGAACATTGCAAATAGGGTCTGAGG
 CTTGTTCTCTGCTCTGAAACATTCTGAAAGCAAGGAAGGGAGGGTTAGTGTCTGGGGCAGTGTGG
 AGCCTGCATGTTGTAATCATCCTGCCATAACAAAGGACTGCATTGTTCTAGCTGGCCACTGGCAGGTCTG
 CCAGGCTACTTGGAACTGTAGTGGAGGTGATTGGAGGGTTATCTGTATATAAAAGGTTCTCCCTCC
 AAAGAAAGACTCCAGTACAAGATAACCTGGTCCCAGGGAGTCTAAATTGTAACAGCAACCCCTGTTGAGT
 GTATGAGTTGATGAAATATAAGCTTCTTCTGTAAGTTAAGTTTCCATCTGACCATAGCAGAAAAAC
 CTAGACCCACCTAGTGAAGAACCTTGTAAGAACCTCCAGGGCAAAACGAACCACTGCAACCCACATGTTGAGG
 GTATGGTCATGGAAGTTCTGGCATCCATTGTTGTAATAAAAGAGATAAAACTGAAAAA
 AAAAAAAAAAAAAA

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FIGURE 87

CTTCGAGCAAGATGGCGCCGCCGGCATTCTTCCACTGCCGTCTGAGGGAACGCTAAGTAGTGTGTCCGGCC
CGTGTCCAGCTCCGCTTGTTCGAGAAAGCGAGAGGCCGAGCCCAGGGCTGGTGCGATGGCCGCGGTGGTGG
CCAAGCGGGAAAGGGCCGCCGTTCATCAGCGAGGCCGCGTGCAGGGCAACGCCCGTCTGGATTATGCCGGA
CCTCGGTGTCAGCGCTGTCGGGGCACGCCGGCATCCTCGGCCTCACCGGCCTCATCTCTACC
TGCTCGCCTCCGTCTGCTCTCCCTGCTCTCATTCTCAAGGCGGAAGGAGGTGGAACAAATATTCAAATCAC
GGAGACCTCTTTACAGGAGGCCTCATCGGGGCCTTCACCTACGTCTGGACGTTCTACGGCA
TGGTGCACGTTGAAATGGGGCCGGGACTTTTAAAAAACAGATCGGAGGACTGTGCCAGCAAT
TAACACCATGTAGACTTCCTTAGTTAGTGGTTGAATTGCTGTTGTAACGTTATAAAATAATTAT
ATCTGAAGACGGAGAGCCTGTAATATTCTCAGATTAATGAAGCGTGAGACAAAAAAAAAAAAAAA

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FIGURE 88

MAAVVAKREGPPFISEAAVRGNAAVLDYCRTSVSALSGATAGILGLTGLYGFIFYLLASVLLSLLLILKAGRRWN
KYFKSRRPLFTGGGLIGGLFTYVLFWTFLYGMVHVY

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FIGURE 89

CGGACGCGTGGGTTCTGGAAGCTGTGCGTCACCGTAAATGAGGCCTGTAATTCTTGATAACTATGACTTGGCT
AGTGAATGGGCAGCCAAATACATCTGTAATCGCATCATTCAAGTCAAACCTGGACAGGACAGATATTTCACACTG
GGTTTACCAACAGGGAGTACACCTTAGGATGCTATAAAAAACTAATAGAATATCATAAGAATGGACACCTTCT
TTAAATATGTGAAGACCTTTAATATGGATGAAATATGTAGGACTTCCAAGAAATCATCCTGAAAGCTACCATTCT
TATATGTGGAATAATTTTAAGCATATCGATATAGATCCTAATAATGCACATATCCTGACGGGAATGCTGCA
GATTTACAAGCAGAATGTGATGCTTGGAAAACAAAAGAAGCTGGAGGAATAGATCTTTGTTGGAGGA
ATTGGTCCAGATGGTCATATCGCTTCAATGAGCTGGATCCAGTTAGTGTCAAGGACAAGATTAAGACTCTA
GCAATGGATACCATTGGCAAATGCCAATATTGTGAGGATTTATCAAAAGTGTCAACTATGGCTCTA
GTTGGGTGGGGACAGTGTGATGGATGCTAGAGAAGTAATGATCCTTATAACAGGGCACACAAGGCATTGCCCTG
TACAAAGCAATAGAAGGAGTCAATCACATGGACTGTTCCGCTTCCAGCAGCATCCCCGACTATTTTGTA
TGGGAAGATGCTACTTTAGAATTAAGAGTTAAACTGTGAAATACTTTAAAGGTCTAATGCATGTGCACAAT
AAACTTGTGGATCCACTATTCAAGTGAAGATGGAAACTGAAGGAGACTGGAGCAAAATCAGCTGAATGAAC
AGAGCACTTTACTAAGTAGATGAATTTCAGCTATGCAATATGACAAAACATGGGAATTGAGATTG
TCATTTTCATTGAGTCTCATGTTAACATTCCATATTGAAATATTATCTTGACTTGGTTAAGAG
AAAGTAGCTGGCTCTAAGATTGACTGGCTATTATATAAAAGTACTGAAGTCACATAGCCACCTATAAAACAGCA
TAGAAATGTCTGCCCTGTTAAAAAGTCATTTAAAGGTAGAGTGTCCACATCAGGCACCATTTGTGATATGACTC
CAGTGGCATATATTTCATTTTAATGACAAGACACTCCAAACCTTCAGATAACAAACTATCATTGCAGACCTT
CACTTTGGAAATGCAATCTTATATTTCATGTCATCACACACATGCTTCTGCACGTGGTGCCTAGTCATC
TTCCTACAGCACCACATAGACATCAAAATGTGCTATATATCATTGTAAGGAAATTGAAAGAGATGACAGTG
CCTAAAGTACAGTTACATCCTTGGAAAGTATGTGTAAGTGCATGTTTGTGCACCTTCTCTATAGCAC
TTTTTACAAATATCTTATTTAAACGACTTGGGTCATGCCCATAATAAGTATCTGACAATTATGAG
CTTTATACCTAGCAAGCCACTCAGGAAATTCTTGGAGAATATTCTGATTATTGTTAAACTTAATATACAA
TTAGCTTATTCCCTATAAAAGTCTAAAAGAATAATACGAAGTATATATAAAAGGAATTACTGTAAACTACATT
GCCATAGCAATTACATAAAAGTATATTGTTCTATCTTAACTCAAATAAGCGTGAATAAAAGTTATCT
AAATTCCAAAAAAAAAAAAAA

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FIGURE 90

MRLVILDNYDLASEWAAKYICNRIIQFKPGQDRYFTLGLPTGSTPLGCYKKLIEYHKNGHLSFKYVKT
GLPRNHPESYHSYMWNFFKHIDIDPNNAHILDGNAADLQAECDAFENKIKEAGGIDL
FVGIGPDGHIAFNEPG
SSLVSRTRLKTLAMDTILANAKYFDGDL SKVSTMALTVGVGTVM
DAREVMILITGAHKAFALYKAIEGVNHMWT
SAFQQHPRTIFVCDEDATLELRVKTVKYFKGLMHVHNKLVDPLFSMKDGN

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FIGURE 91

TCGGCTCGGGCTTCTGATTATGCAGAACITAAACTATGCCCTCAGTGACCCATAACAGCATTCCAGTTCTATC
ACCTACTGTCTTGTCCCTATACTTGCAGCAGTTGTCAGGGTTATTCTTGTCTGTATTAGAATTTCAGG
TTGCTTAAGGAATCTTGCAGATACTTGTGACAAAGAATCATAAATGCTGTTAAACTGAATAATGAATTGAGT
CCCAAATGTTCTGCTAATTAAATGCTTTGAGTTGGAGATGAAATGAGAGTAATATCATCAAGCTGTGGATTAA
AGTTATCCTCAAAGCCCCATCATCTACAAAAAGAA TAGGACAGGAACTGCCCTTGTGCAGGTGCAAGACCAGTGT
ACTTTGAGCAGTGTGAGATGTCGGGATACAATTGGGTCCTTGTCTTACTAATCATCCTCTTGTGTTATGGTCTTGA**T**
TCTTCACCTTCAGCCACTCACAACTGACCTTCACTACTATTACATCCTGGAGCTGTCGTTATGGTCTTGA
TGTTTCTCAGTTACTGATATCAAAGAAAGGACTTTGGCATTATGTTCTGCACCACCTGTATCTATTTCT
TGATTACCTTTCATATGTCAACAATATGGCCCGAGTAGGAACGCTGGTCCTTGTCTTATGATTCAAGCTGATG
CTCTCTGGAGGCTGCCAAATGGCAAATTATGCCAAGTTCAGAAAATGTGTATCTCTGGGTGTTAAATACCACATTATGGAAAGCTGGG
CCGTGGTTTATACCCACACGACTGGGTATATTCTCTCTGGGTGTTAAATACCACATTATGGAAAGCTGGG
AGATGTTGGACCTTACCCCTCTGGGGTTTTAACCTACTGCTATTGCTAGTACAAGGGTTGAACGTCTCT
GGTCTTACTTGATTGAAAATAGCTTGCAAGCTGTTCAAGAGGCAAGGTGTCAGGATGATCGAAGTGATA
TTGAGTCTAGCTCAGATGAGGAGGACTCAGAACCTCCGGAAAGAATCCCCACACTGCGACAACCACCAATGGGA
CCAGTGGTACCAACGGGTATCTCCTGACTGGCTCTGCTCCATGGATGATT**A**TTACTCAGAACCTACAAGTCCC
AGCAAAGTGAACTATTGTTCTGGAAGTATTTAAATAGTTGCAATGCAAGTCTTCTATGATCTCAGCACC
AGAAACAAAAATTAAAGATTATCAAAGCTTTGAATAGTGCACIGCCATGTGCTCTGTGAATGAAGAAGAA
TTACCATCTCTTTGTAGGCATGCTGTATGTAATTGACACAAGGAAACAGTATTGCAATTGTACTGTCTTAG
AATATTATTTATTTGTATTTGAAATCTGGAACAAAGAGGGTTCTCACTCCTTACTCACTGGGCT
CATGACAGTGAAGGAGATGCTCATCTGCTCTCCCCCTTCTTGCTGTAGTCCAATGTGCTATGAGCATCAG
CTTACTTGTCACTTAGAGCAAGCAAACCCAGTGCAGAGTCTCGTCAGCTCAAATAGGTTGCTTCTTT
AGTTACAGTGCCATTGAAATTGCCTATACAGTCTAGTGCACATTAAACCGGACGAACTAGGTGTTAATT
TTCACTCTCATGTTCAATTAGCAGTCAAATTAAAGAAGATGGTATTGGAGAACATTGGTGAATGGTTTGTA
TTAAATTGCTTGAATAGATTCAATTCTGTGCACACAGCCAAGATTCTCAATGGGTGAGCTAGTGAG
GGTTAACCTTGTAGGTTGCAGANNNNNNNNNNNNNNNNNNNNNNNNNNNNGATGAGGTAGTGCCTGATT
TTGAAGGAGGATATTCACTGAAGCTCATAGTTATAAACAAAGGAAATCACTGTTAAGAATGGGAAATTGCTCTGT
TTCTGGGATAACATAAAGAGAGCAACTGATTCAGCCAGGTTGCCACTACCCATAATTAGTGCAGTCTTAT
GTTATAAAAGAAAGAAGTTAATTTGGGGACAAAAAAATATTCAAGAGTTGATAAAAGATTACCTGTGCAG
TGCAGAGCACTTAATGCAACCAGCTTCAAGAAAAGCCCTATCTAGTACTGATGTTGATGTTTATTTGC
TGAGCAAATAAGCCAATGGGAGAAGGACAA

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FIGURE 92

MFSQFTDIKRKDFGIMFLHHHLVSIFLITFSYVNNMARVGTLVLCLHDSADALLEAAKMANYAKFQKMCD
LLFVFMFAVVFITTRLGIFPLWVLNTTLFESWEIVGPYPSSWWFNLLLLLVQGLNCFWSYLVKIACKAV
SRGKVSKDDRS DIESSSDEEDSEPPGKNPHTATTNGTSGTNGYLLTGSCSMDD

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FIGURE 93

GGAGTCGTTGTTGCTGTTGAGCCTGTGCGGGCGCTTGTGGGCCGGAACCTAAAGATAGCCGCAAATG
GCTGAAAATGGTGATAATGAAAAGATGGCTGCCCTGGAGGCCAAAATCTGCATCAAATTGAGTATTATTTGGC
GACTTCATTTGCCACGGGACAAGTTCTAAAGGAACAGATAAAACTGGATGAAGGCTGGTACCTTGGAGATA
ATGATAAAATTCAACAGGGTGAACCGCTAACAACAGACTTAATGTAATTGTGGAAGCATTGAGCAAATCCAAG
GCAGAACTCATGGAAATCAGTGAAGATAAAACTAAATCAGAAGGCTCCAAGCAAACCCCTACCTGAAGTGACT
GATGAGTATAAAATGATGTTAAAAACAGATCTGTTATATTAAAGGCTCCAACTGATGCAACTCTTGATGAC
ATAAAAGAATGGTTAGAAGATAAAAGGTCAAGTACTAAATATTCAAGATGAGAAGAACATTGCATAAAAGCATTAAAG
GGATCAATTTTGTGTTGATAGCATTGAATCTGCTAAGAAATTGAGAGACCCCTGGCCAGAAGTACAAA
GAAACAGACCTGCTAATACTTTCAAGGACGATTACTTGCCAAAAAAATGAAGAAAGAAAACAAAATAAAGTG
GAAGCTAAATTAAAGAGCTAACACAGGAGCAAGAAGCAAACAAAGTTAGAAGAAGATGCTGAAATGAAATCTCTA
GAAGAAAAGATTGGATGCTGCTGAAATTTGGGTGATTTAGATGATCAGACCTGTAGAGAAGATTACACATA
CTTTCTCAAATCATGGTGAATAAAATGGATAGACTTCGTCAAGGAGCAAAGAGGGGATAATTCTATTAA
GAAAAAGCCAAGGAAGCATTGGTAAAGCCAAGATGCAAATAATGGTAACCTACAATTAAAGGAACAAAGAAGTG
ACTTGGGAAGTACTAGAAGGAGGGTGGAAAAGAAGCACTGAAGAAAATAATAGAAGACCAACAAGAACATCCCTA
AACAAATGGAAGTCAAAGGTCTAGATTAAAGGAAAAGGAAAGGGTAATAAGCTGCCAGCCTGGGTCTGGT
AAAGGAAAAGTACAGTTCAAGGGCAAGAAAAGCAAATTGCTAGTGATGATGAACATGATGAAAT
GGTGCACACTGGACCTGTGAAAAGAGCAAGAGAAGAACAGACAAGAACCTGCATCCAACACAGAAAACA
GAAAATGGTGCTGGAGACCAGTAGTTAGTAAACCAATTTCATTCAATTAAATAGGTTAAACGACTTTTG
TTTGCGGGGCTTTAAAGGAAAACGAATTAGGTCCACTCAATGTCCACCTGTGAGAAAGGAAAATTTCAGATG
GTTGTTAACCTGCTTTGTTATGCAAATGAGATTCTTGAATGTATTGTTCTGTTATTCAGATG
ATTCAAATATCAAAGGAAGATTCTCCATTAAATTGCCTTGTAAATATGAGAATGTATTAGTACAAACTAACTA
ATAAAATATACTATATGAAAAGAGCAAAAAAAAAAAAAAA

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FIGURE 94

MAENGDNEKMAALEAKICHQIEYYFGDFNLPRDKFLKEQIKLDEGWVPLEIMIKFNRLNRLLTDFNVIVEALSKS
KAELMEISEDTKIRRSPSKPLPEVTDEYKNDVKNRSVYIKGFPDATLDDIKEWLEDKGQVLNIQMRTLHKAF
KGSIFVVFDSIESAKKFVETPGQKYKETDLLLILFKDDYFAKKNEERKQNKEAKLRAKQEAEAKQKLEEDAEMKS
LEEKIGCLLKFSGDLDDQTCREDLHILFSNHGEIKWIDFVRGAKEGIILFKEKAKEALGKAKDANNGNLQLRNKE
VTWEVLEGEVEKEALKKIIEDQQESLNWKWSKGRRFKGKGKGNAAQPGSGKGKVQFQGKTKFASDDEHDEHDE
NGATGPVKRAREETDKEEPASKQQKTENGAGDQ

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FIGURE 95

TTTTAACCTTGCAACAGGTTTATTTGCTTAATCTATTACAGTGTGAAACCTAAAGAAATACATTTCTCTTCAAATTGGATGTGTATAAATAACATTTGCTGGACTCAGCACACTCAATGCCATGTTTCTTCGCCTATGTCTGCTCTGAAATCAAGCTGTGTCTACCCAGGGGCCCTGAGAACATGGAAAATAGAGTTATTGTTATTAGAAAAATAAAAGCAAATGAATTGCAAAGAAAAACAGTGAGAAGGATTAGATTCATCTCCAAGGGTCCATAGCTGGTAACCAAGCCATTCTGGGGGATATCCAGTCTTGAGTGGCTGGACTCCATTACCCACTTCCCTTCTTAATAGGTCAAAGGCAATTCCCACAAAAGCTGGCTAAAAAGCCGACACCCAACCTCCAGAGTCTGAGGGTTCATGAAGATGTGGACTTTTTTGAGACAAGAG

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FIGURE 96

CTCTTACAGCAAATATCACTACCTGACATATTTACTAGAATGTAAGCTCCATGAGGAGGGGATTTGTTTGTT
TACCATGGTGTGTTTAGTATTCAAGAACATGCCTGCTACATAGTAGTTGCTAAAAAATTTTTGTTAAATGAAT
AAGTTGAATCATGTTGTTCCAGTGTAGACAGAAATAGGTATATGTGGTTGAAAATGAACAGCACAAAGTTAGCT
CCCCAAAAATGGCAAAGTGAATAAAGAACATTCTGAAGAACATTGTTGAACGTAACTCCCAGCACTTGGGA
GGCTGGGGCAGTTGG

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FIGURE 97

GGCGGATTCCCTGGGCGAGGCCTGGGAAGCCTGCAACCGGCCACAAATTCTAGCAGTGCCAAGAAGAAGGA
TAAAAGAGTTCAAGGTGGAAGAGTGATTGAGTCCCCTGATCTGAGTATGAAAAGAAGACAACCCAAAAGGCTCC
TGCAGGAGATGGTCACAGACCCGAGGAAAGATGTCAGGAGTGGAAAGGAAATCCAGCCTGCTCCAGAAAAGCAA
AGCAGATAGCAGTGGGTGAGAAAGGGTACGCTGCAGTCCACGTTGCTGGAAGGGATGGCACAGCTCCACCTGA
CCTGGATCTCTGCTATTAAATGACAAAAGCATCGTCAAAAAGACGCCACAGTTAGCAAAAACAATATCAAAGAA
ACCTGAGTCAACATCATTCTGCCCTCGAAAAAGAGCCGGATTTATCTGAAGCAATGAAATGATGGAGTC
TCAGACACTACTGCTGACGCTACTATCCGTAAAGATGGAGAACATCTGCTGAGTTGAAGAAGGGCAGAAAA
GAATTATAATAATGTGTAAGGAGAACGCTACAGAAAAGGCCACGAGCTAGCGCAGGCTTCTCCT
CTCTCAGAGGAAGCGGGAGCTGGCAGATGCTCTGGATGCCAGATCGAGATGCTCAGCCCCCTCGAGGCAGTGGC
CACACGCTTCAAGGAGCAATACAGGACATTGCCAACGGCCCTGGACACTACCAGGCACGAGCTGCCGTGAGGTC
CATCCACCTGGAGGGAGATGGCAGCAGCTTAGACGCCCTGCAGCATGAACGGTGACCACCTAGCGCCTCCT
GGGAGAACTTGATGTTGGTATTGGAAGAAAATGTCAGGTGCTGGACTTACTGAGCGAACTCAAGGACGTGAC
GGCGAAAAAGGACCTTGAGCTCGAACGGAGCTTGCCCAGGTGCTGGAACTCTCGCAGAGGCAAGCAAAGAGGC
AGCCTTGGCAAACCAAGGAAGTCTGGGAAGAGACCCAGGGCATGGCCTCCCCAGCCGGTGGTATTCAATCAAGA
CAGTGCCTGCAGAGAATCTGGGGAGCACCCAAGAACACGCCCTGCTGAGGACGACAACCCGGGTGCCTCGTC
AGCCCCCGCTCAGGCCACGTTCATGCCAACGCAAGGATTTTCTCAAGCAGCCAGGCAGAAGTCCCGCCCTC
TCTCTCTGTTAGGGAGGGACTTGTACTGACTCATGGTTACATTAGGAACTTGAGCACTTTATATACTACCG
TAGCACTGTAGCTATTTTTATGTGATAATCTGTTGATAAAAAGTAAACCTGTTGCAATTGAAGCCTCCA
TTTCTATGAAGGGCCAGTTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 98

GAAGTCTAGAACAGGATGAGGTCTCAGTGGACCTAGACCAAGGTCTTGCTCTCAGAATCATCACAGTAGCCA
TGGACTGGACTCTTCATCTCAGGCAGTGGCTTGCCATCATTTCAGATGAGCCTATCCTGCCAGAAAGA
CTCAACACCTCACCAAGGGGAAGGGATTTCTACAACCAAAACCCACTGCAGTTTCACTCTTTTTTTCTT
TTTGTATATGGTGGATATTTTACTTATATAGTTTATTCTTATTTTACTGTTTCATTGTTGTTTTA
AAAGCTTATCTTATTATAGCTCTTGTCCCAGGTTGCATTACTTCATAACAAAATAAGCATGATTATT
GAAAAAAAATACCGCACATTACAGAAATGCATAAAAGCAAATGTCACTCTGAATTCCCTTCACC
TCCTACCTCCGCATCACTCTCAAAGGGTAACATTATCAGCAATTGATATAGATCTTAGACTTTCTAT
GCTAATGTAACATATATTTAAATGTACACGCGCTGTGCAACTGCTTATTCACTAAAATTGGTAGG
TATAAAGATAGCTACCTCTTTAAAGGCTTATCATTAAGAATCCTATTAATGGATATTAAGTTGCTTAGTT
TTGGTTGCTATTATGTCATTGTAAGAACACTTTGTG

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FIGURE 99

ATGCACACCGTGGCTACGTCCGGACCCAACGCGTCCTGGGGGGCACCGGCCAACGCCCTCCGGCTGCCCGGGCTGTGGCGCCAACGCCTCGCCGCGGGCCAGTCCCTCGCCGCGGGCCGTGGACGCCCTGGCTCGCCGCTCTTCTCGCGGCGCTGATGCTGGGCTGGTGGGAACTCGCTGGTCATCTACGTCATCTGCCGCCACAAGCCGATGCGGACCCTGACCAACTCTACATCGCCAACCTGGCGGCCACGGACGTGACCTTCCCTCTGTGCTGCGTCCCCCTCACGGGCCCTGCTGTACCCGCTGCCGGCTGGTGCTGGCGACTTCATGTCAAGTTGTCAACTACATCCAGCAGGTCTCGGTGAGGCCACGTGTGCCACTCTGACCGCATGAGTGTGGACCCGTGGTACGTGACGGTGTTCGGCTTGCACGCCCTGCGACCGCCGACGCCCGCCTGGCGCTGGCTGTGACGCCCTCAGCATCTGGTAGGCTCTGCGGCGGTGTCTGCGCCGGTCTCGCCGCTTCGCGCCTTCGCGCTCGCCCTGCACCGCCGCTGTGACCCGGGCCGCGCGCTACTGCAGTGAGGCCCTCCCCAGCCGCCCTGGCGCCCTTCGCGCCTTCGCGACTGTACAACCTGCTGGCGCTGTACCTGCTGCCGCTGCCACCTGCCGCTGCTATGCCGCCATGCTGCGCCACCTGGGCCGGGTGCGCGCCGCGCCGCGATAGGCCCTGCGAGGGCCAGGTGCTGGAGAGCGCGCAGGCCGCGCTGCGGGCCAAGGTCTCGCGCTGGTGGCGGCCGTGGTCTGCTTCCGCGCCTGCCTTCGCGCTTCGCGCTGGGGCCCATCCAGCTGTTCTGGTGCTGCAGGCCTGGGCCCTGGCACCCACGCACTACGCCCTACGCGCTTAAGACCTGGCTCACTGCATGCTTACAGCAACTCCGCGCTGAACCCGCTGCTACGCCCTCGGGCTCGCACTCCGACAGGCCCTCCGCCGCGTCTGCCCTGCGGCCGCGCCGCCGCCGCCGGCCCGACCCGAGCTGCACCGCCTGGGTCCCACCCGGCCCCCGCCAGGGCGCAGAAGCCAGGGAGCAGTGGGCTGGCCGCGCGCGGGCTGTGCGTCTGGGGAGGACAACGCCCTCTCTGA

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FIGURE 100

MHTVATSGPNASWGAPANASGCPGCGANASDGVPSPRAVDawlVPLFFAALMLLGVGNSLVIYVICRHKPMRT
VTNFYIANLAATDVTFLCCVPFTALLYPLPGWVLGDFMCKFVNVIQQVSVQATCATLTAMSVDRWYVTVFPLRA
LHRRTPRLALAVSLSIWVGSAAVSAPVLALHRLSPGPRAYCSEAFPSRALERAFALYNILLALYLLPLLATCACYA
AMLRHLGRVAVRPAPADSLQGQVLAERAGAVRAKVSRLVAAVVLLFAACWGPQLFLVLQALGPAGSWHPRSYA
AYALKTWAHCMSSNSALNPLLYAFLGSHFRQAFRRVCPCAPRRPRRPGRPDSPAAPHAELHRLGSHPAPARA
QKPGSSGLAARGLCVLGEDNAPL

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FIGURE 101

GAGTAGCTCACCGTTACCCAAGTATGCTCATCTCCAAACCAAACAACAGCTACATGTTCAAACGGGAGCCCC
AGAGGGATGTGAGCGAGTGAAGGTCTTGAGGAAATGGCGTCAGCCTATCTCGGCCCTCTTTCACT
TCCTGACAAAACAAGGTTAATTCACTCCAACCGGATCAGCTTCTGTCCTGTAACACTCTAGGGCCCTCT
ACCTGCTCTGACCTTATGCTCAAGAACCTCCTAATCTGGCAGAGCTCAGCTTGGCAACTCTGACC GTGA
GCAGCTCTCATCCGGGTTTACGCTCTTCTGATGACACCAGCACAGCGGGCTCCATGGAGGCCTCTG
CCAGCAGCCATCCCAGCAGCAGCTCTGCAGGAAC TG CAGGGTGAGGACACATCTGCTCAGAACTATGT
GATCATCTAAAAAAGGGGGAGCTGGCCTCCACCCATGTTCCATGGATTGGAACAAGATTCAGACATCTGCAT
GAGTGACAAACTTCTGAACACCACCAATAACTTATCAGCATCATAAGTATCTCTAAACACTGAT
CTTGGCAGGGACGGAACCTCTATTCA GCAGTTTGAGGAAAGCAGTAATGCTGCAAAACGTGTGTCATTCA
GCATTTAAGTGGAGACTATGCATTCA TAGTATAATTGACAGATTAGTACTGTGCTGTGTTGTTCCAGAT
TCTTCAGTATAAAAGCTCTATATCAAAAAGTTGCCTGTCTAAATAGAAAATGTCTGCTGTGTTGTCCTAT
GGAAAAAACTGTAATTCAAGGATTATGTTACAATTGATCCAGGTGTTCTAACTCTGTAATACATACAAT
GCAAAAAAAAAAAAAAA

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FIGURE 102

AAGCTAAATAATAGCTTATTCACTTTAGAGATTGCCATTAGCTAGAAAATTACATCAAAGATGAAC
TGATTTGCTGAAAAAGTCACCATGTTAATTGCTCACACAATTAAATTACAACAGATGTAATTCTAATA
TATACCATTGATCACACACCATTATGTTCTGGAGTGAGACCTGGAGTATTTGCTTAAGACTTCTCATT
CTCTAAAACTAGCTTGGCAGTTAACAAATGTGGAGAATTCAAGCAGCAGCCCTAGCCCAGCCTTTTATT
TATTTTTAAATCTATTTAACCTTCAAAGTTCCCTTGCAGCCATATGCATTCTAGGTGGCTACCTGT
AGAAGGCTGCACTTCCAAGCGCGAGGGACTTAATTCTCACTTXCCACCACTCC